



# LEGISLATIVE BRANCH CITY OF BINGHAMTON

Teri Rennia, City Council President  
Jeremy Pelletier, City Clerk

## CITY COUNCIL WORK SESSION AGENDA City Council Work Room, 38 Hawley Street, Binghamton Monday November 3, 2014

*The Work Session begins at 6:00pm. Times for RL(s)/Topics are approximate only and items may be considered earlier or later.*

Time	Committee	Chair	RL(s)/Topic	Pages	Presenter
6:00pm	-----	-----	<b>Discussion:</b> Our Space at Recreation Park	-----	Councilman Mihalko, Jennifer O'Brien, Bill Barber, Nicholas Corcoran
6:30pm	-----	-----	<b>Discussion:</b> Formula used to calculate JSTP IPP fees paid by the Water Department to the JSTP	1-85	John LaGorga, Joseph Yannuzzi, Jeff Kruger
7:00pm	Finance	Berg	<b>Discussion:</b> Update on proposed plans for First Ward Pool <b>RL 14-158:</b> Re-negotiate agreement with Ely Park, LLC to operate and manage Ely Park Golf Course	92	Bill Barber, Mike Dervay
7:15pm	Finance	Berg	<b>RL 14-157:</b> Amending 2012 and 2013 Capital Lease Agreement for a John Deere Front Loader	88-91	Gary Holmes, Mike Dervay
7:30pm	PW/Parks	Motsavage	<b>RL 14-159:</b> Broome-Tioga Stormwater Coalition Agreement	93-96	Gary Holmes
	-----	-----	<b>Discussion:</b> Intro R14-72, Suppl. No. 2 with Clark Patterson Lee for Susquehanna North Bank Trail Project	86-87	
	PW/Parks	Motsavage	<b>RL 14-160:</b> Suppl. No. 1 with Clark Patterson Lee for Front St. Gateway Project	97-114	
7:45pm	-----	-----	<b>Discussion:</b> Review of Washington Street Mall Project	-----	Chuck Shager, Jennie Skeadas-Sherry, Gary Holmes, Kenneth J. Frank
8:00pm	-----	-----	<b>Discussion:</b> Review of Sale of 177 Oak Street	-----	Jeremy Pelletier
8:15pm	-----	-----	<b>Discussion:</b> Review of Committee Reports & Pending Legislation	-----	Council President Rennia

### COMMITTEE REPORTS

#### **Employees Committee: Berg (Chair), Webb, Papastrat**

Potential amendments to residency requirements for City of Binghamton employees.

#### **Municipal & Public Affairs Committee: Motsavage (Chair), Webb, Matzo**

Potential amendments to the City of Binghamton's noise ordinance regulations.



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**Public Works/Parks & Recreation Committee: Motsavage (Chair), Berg, Mihalko**

Review the Traffic Signal Removal Study.

**Binghamton-Johnson City Joint Sewage Treatment Facilities - Industrial Wastewater Pretreatment Program**

**City of Binghamton Water Filtration Plant  
Industrial Wastewater Pretreatment Program Surcharge**

Oct-13

**Calculation of Monthly Sludge Discharged to the BJCJSTP from Turbidity Removal**

QRW - Total Volume of raw water treated at the Water Plant for a 1-month period (gallons)

t - Average Monthly Turbidity of Raw Water (NTU)

RTSS - Typical ratio between total suspended solids and turbidity expressed as 1.25 mg TSS/L-NTU (1)

$$\text{Sludge from Turbidity Removal} = (Q)(t)(RTSS)(3.785 \text{ L/gal})(2.204 \times 10^{-6} \text{ lb/mg})$$

$$QRW = 191,123,400 \text{ gallons}$$

$$t = 5.15 \text{ NTU}$$

$$RTSS = 1.25 \text{ mg TSS/L-NTU}$$

$$10,260 \text{ lb TSS Sludge}$$

**Calculation of Monthly Sludge Discharged to the BJCJSTP from Coagulant Addition**

- Note: Calculations use Holland PCH-180 as the Water Plant coagulant.

QAlum - Total Volume of coagulant used at the Water Plant for a 1-month period (gallons)

DAlum - Holland PCH-180 coagulant density expressed as 10.5 lb/gal (2)

mAlum - Specific Mass of Al Sludge per Mass of PCH-180 Coagulant expressed as 0.49 lb dry sludge/lb coagulant (1)(2)

$$\text{Sludge from Coagulant} = (QAlum)(DAlum)(mAlum)$$

$$QAlum = 5,761.60 \text{ gallons}$$

$$DAlum = 10.5 \text{ lb/gal}$$

$$mAlum = 0.49 \text{ lb dry sludge/lb coagulant}$$

$$29,640 \text{ lb Al Sludge}$$

**Calculation of Total Monthly Sludge Discharged to the BJCJSTP**

$$\text{Total Sludge} = \text{Sludge from Turbidity} + \text{Sludge from Coagulant}$$

$$\text{Turbidity Sludge} = 10,260 \text{ lb TSS Sludge}$$

$$\text{Coagulant Sludge} = 29,640 \text{ lb Al Sludge}$$

$$39,900 \text{ lb Total Sludge}$$

**Calculation of Total Monthly Cost for Sludge Discharged to the BJCJSTP**

$$\text{Total Cost} = (\text{Total lbs of Sludge})(\text{Cost per lb Sludge})$$

$$\text{Total Sludge} = 39,900$$

$$\text{Cost per lb} = 0.3787$$

$$\text{Monthly Surcharge for Sludge} = \$15,110$$

**Calculation of Total Monthly Cost for Wastewater Flow Discharged to the BJCJSTP**

QRW - Total Volume of raw water treated at the Water Plant for a 1-month period (gallons)

QFW - Total Volume of finished water the Water Plant pumped into distribution system for a 1-month period (gallons)

$$\text{Total Cost} = ((QRW - QFW)/748.055056852184)(\text{Cost per 100 cu. ft Flow})$$

$$QRW = 191,123,400 \text{ gallons}$$

$$QFW = 173,837,600 \text{ gallons}$$

$$\text{Total Flow Discharged} = 17,286 \text{ 100 cu. ft. units} \quad * - \text{estimated} \quad (3)$$

$$\text{Cost per 100 cu. ft.} = 0.3672$$

$$\text{Monthly Surcharge for Waste Discharge Flow} = \$4,500 \quad * - \text{estimated} \quad (3)$$

NOTE: billing will be adjusted when accuracy of QFW flow data is resolved (3)

**Calculation of Total Monthly Surcharge**

$$\text{Total Surcharge} = (\text{Monthly Surcharge for Sludge}) + (\text{Monthly Surcharge for Flow})$$

$$\text{Monthly Surcharge for Sludge} = \$15,110$$

$$\text{Monthly Surcharge for Waste Discharge Flow} = \$4,500 \quad (3)$$

$$\text{Total Monthly Surcharge} = \$19,610 \quad (3)$$

**Notes:**

- 1 - MWH Water Treatment Principles and Design - page 1658
- 2 - MSDS for PCH-180 from Holland Company Inc.
- 3 - The Waste Discharge Flow Surcharge will be adjusted/back-billed once the flow meter on the discharge pipe is installed and calibrated and accurate data is available.

A Detailed Account of the Billing Procedure Employed by the JSTP  
As related to the Binghamton Water Treatment Plant

Each bill is presented in a sectional format

Section 1 represents the Potential of Sludge Development using Flow vs. Turbidity which is in turn  
Converted to TSS (total suspended solids)

QRW = Raw Water Flow in Gallons

T = Turbidity As expressed in NTU (Nephelometric Turbidity Units) the clarity of Water

RTSS = The theoretical conversion unit for converting NTU into a Direct TSS (total suspended solid)

3.875 = gallon to liter conversion

0.0000022046 = converting pounds to milligrams

QRW -	191,123,400 gallons of raw water pumped
T -	5.15 NTU Average range for the month
RTSS -	1.25
	3.875
	2.2046E-06

Total sum	10,260 lbs of sludge potential	Actual sludge development can vary
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Section 2 represents the addition of our coagulant and its effect on sludge formation based on basic  
physical characteristics of the Coagulant Dose vs. weight

Qalum = the amount in gallons of coagulant we have added to the water

Dalum = the weight per gallon of coagulant

Malum = the weight of sludge alum in dry form

Qalum -	5,761.60
Dalum -	10.5
Malum	0.49
Total	29,640 Lbs of alum sludge

Add Both totals together to form the sludge portion of the bill

sec 1	10,260
sec 2	29,640
	<hr/>
	39,900 total sludge potential

billing -	39,900
	0.3787
	15,110.00 Dollars

Section 3 is just done in a way that convinces me the reports I am forced to send them go unread.  
They have had the proper figures since September 2011 monthly report. They choose to ignore it.



**Waste Water Reporting Sheet**  
City of Binghamton New York Water Filtration Plant  
31-Oct-08

	Raw turb high	Raw turb low	Raw flow	Alum #/day	Monthly Reporting Totals
1	5	2.6	7,557,600	920	
2	3.8	2.6	7,556,200	723	Raw Water Turbidity
3	3.4	2.2	6,773,200	742	10.7
4	3	2.1	6,995,200	778	Raw Water Flow Total
5	4.6	2.1	7,543,200	814	223,993,800.00
6	3.6	2.1	8,283,600	979	PCH-180 Gals Used
7	3.5	2.1	7,896,000	928	8,308
8	3	2.1	7,115,600	825	Alum Total #'s
9	4.2	2.1	7,119,600	748	24,861
10	4.2	2.1	7,370,800	722	
11	3.4	1.3	6,536,000	745	
12	3.4	2.1	6,811,200	675	
13	3.8	2.1	6,983,800	714	
14	4.2	2.2	7,009,800	809	
15	4.6	2.5	7,596,000	884	
16	5.1	2.6	7,326,800	871	
17	3.5	2.1	6,333,400	709	
18	3.8	2.2	7,074,400	803	
19	5.4	1.7	7,141,000	813	
20	23	1.7	7,110,800	785	
21	3.8	1.7	7,242,000	713	
22	6.2	1.7	6,902,800	731	
23	255	1.3	7,533,600	700	
24	3.1	1.7	6,914,400	625	
25	36	1.3	7,309,200	715	
26	54	6.3	6,992,000	811	
27	20.1	3.8	7,260,600	947	
28	68	3.8	7,668,800	1055	
29	23	5.8	7,631,200	971	
30	8	3.8	7,167,000	838	
31	7.6	3.8	7,238,000	768	

**Waste Water Reporting Sheet**  
City of Binghamton New York Water Filtration Plant  
30-Nov-08

	Raw turb high	Raw turb low	Raw flow	Alum #/day	Monthly Reporting Totals
1	6.9	0.89	8,147,200	834	
2	4.2	2.5	7,606,800	754	Raw Water Turbidity
3	3.8	2.1	8,417,600	833	11.8
4	3.6	2.1	8,417,600	804	Raw Water Flow Total
5	3.4	2.1	7,033,600	771	229,841,000
6	4	2.2	8,847,600	891	PCH-180 Gals Used
7	3.5	2.2	8,049,600	819	6,640
8	4.6	2.1	7,284,800	628	Alum Total #'s
9	4.8	2.2	7,506,200	634	19,871
10	3.6	2.1	7,834,400	675	
11	2.7	2.1	7,558,200	675	
12	2.5	1.7	7,355,000	619	
13	2.6	1.7	7,003,000	592	
14	2.4	1.3	7,577,200	528	
15	401	1.7	7,636,400	769	
16	122	6.7	6,792,400	992	
17	9.1	4.2	7,688,000	671	
18	7.5	3.4	7,127,400	613	
19	4.4	2.5	6,850,800	513	
20	4	2.5	8,039,800	540	
21	3.6	2.1	7,265,800	590	
22	3	1.7	7,461,000	485	
23	2.7	1.7	8,192,800	497	
24	2.6	1.3	8,717,600	541	
25	11.6	1.7	8,130,200	644	
26	7.6	2.2	7,033,400	615	
27	4.4	1.7	7,806,400	660	
28	2.5	1.3	6,917,200	528	
29	2.6	1.7	8,276,600	617	
30	2.6	1.3	7,266,400	539	
31					

**Waste Water Reporting Sheet**  
City of Binghamton New York Water Filtration Plant  
31-Dec-08

	Raw turb high	Raw turb low	Raw flow	Alum #/day	Monthly Reporting Totals
1	58	3.4	7,878,400	897	
2	13	3.8	7,900,400	756	Raw Water Turbidity
3	6.6	3	7,603,800	689	24.6
4	6.3	2.1	7,090,800	619	Raw Water Flow Total
5	6.3	2.1	7,864,400	646	241,513,000
6	3.3	1.7	8,027,600	569	PCH-180 Gals Used
7	298	1.3	7,296,000	536	8,993
8	3.9	2.2	7,704,400	619	Alum Total #'s
9	3.3	1.7	7,568,000	592	26,911
10	110	1.7	7,740,800	879	
11	81	12	7,564,800	936	
12	111	31	7,972,000	1136	
13	48	14	7,745,000	797	
14	21	8.7	7,534,600	779	
15	76	8.3	7,765,600	1018	
16	31	7.1	7,494,800	983	
17	15	9.9	8,126,400	892	
18	19	9.1	8,920,000	1049	
19	15	7.1	7,654,800	865	
20	17	5.4	7,746,400	834	
21	8.7	4.6	7,621,600	713	
22	10	3.4	8,566,000	754	
23	5	3.2	7,257,200	761	
24	10.3	2.6	7,664,800	882	
25	96	2.6	7,711,200	1109	
26	19	9	7,576,800	992	
27	53	12	8,301,200	1134	
28	48	14	7,867,800	1071	
29	31	17	8,327,800	1170	
30	29	19	7,637,400	1167	
31	32	16	7,782,200	1067	

# 2009 Flow Review

Raw Water	Finished Water	Waste Water	PCH	Turbidity	Month
249,802,000	N/A	N/A	6,751.0	1.70	Jan
227,074,000	N/A	N/A	7,123.0	15.20	Feb
252,481,200	N/A	N/A	10,010.0	17.70	Mar
230,650,900	N/A	N/A	7,017.0	5.60	Apr
238,110,400	N/A	N/A	8,269.0	8.60	May
223,743,600	N/A	N/A	9,352.0	18.00	Jun
219,126,700	N/A	N/A	8,894.0	5.10	Jul
220,606,500	N/A	N/A	10,347.0	11.90	Aug
205,869,200	207,431,400	N/A	8,220.0	3.30	Sep
208,154,900	212,352,200	N/A	7,194.0	13.00	Oct
201,380,200	205,067,800	N/A	6,569.0	4.70	Nov
210,538,300	218,270,100	N/A	6,555.0	4.10	Dec
2,687,537,900	843,121,500	0	96,301.0	9.08	
Gallons	Gallons	Gallons	Gallons	AVG NTU	
		Installed 2011			

# Waste Water Reporting Sheet

City of Binghamton New York Water Filtration Plant

31-Jan-09

	Raw Turb AVG	Raw flow	Alum #/day	Monthly Reporting Totals
1		8,016,800	1083	
2		7,472,000	809	Raw Turbidity Avg
3		7,930,800	880	1.7
4		7,906,400	741	Raw Water Flow Total
5		8,183,800	777	249,802,000.00
6		8,027,800	758	PCH-180 Gals Used
7		8,004,400	756	6,751
8		7,647,400	738	Alum Total #'s
9		7,412,400	606	20,203
10		7,822,800	591	
11		7,589,000	584	
12		8,097,200	658	
13	3.03	8,410,600	688	
14	2.34	7,469,600	644	
15	2.13	7,494,600	628	
16	1.68	7,907,200	635	
17	1.66	8,294,800	771	
18	1.57	7,915,400	798	
19		8,895,000	1084	
20	1.74	8,262,400	887	
21	1.73	7,871,600	561	
22	1.49	8,207,600	563	
23		8,737,000	560	
24	1.44	8,475,800	507	
25	1.49	8,232,000	517	
26	1.37	8,869,400	538	
27	1.34	8,201,800	520	
28	1.4	7,793,200	477	
29	1.5	8,026,400	479	
30	1.35	8,419,200	495	
31	1.45	8,207,600	492	

Feb. should look more complete with the new turbidity reporting sheets

# Waste Water Reporting Sheet

City of Binghamton New York Water Filtration Plant

28-Feb-09

	Turb.Daily Averages	Raw flow	Alum #/day	Monthly Reporting Totals
1		7,958,400	515	
2	1.3	8,062,400	485	Raw Water Turbidity
3	1.3	8,798,200	520	15.2
4	1.4	7,372,200	447	Raw Water Flow Total
5	1.5	8,081,200	480	227,074,000.00
6	1.4	7,873,600	467	PCH-180 Gals Used
7	1.4	8,271,200	497	7,123
8	6.6	7,942,000	690	Alum Total #'s
9	4.9	8,320,400	727	21,315
10	9.7	8,077,600	929	
11	90.5	7,818,800	1398	
12	108.9	7,764,000	1457	
13	54.2	8,025,200	1265	
14	16.5	8,532,000	1019	
15	11.5	7,890,400	817	
16	8.0	8,794,000	898	
17	6.1	7,961,200	754	
18	5.2	7,662,800	740	
19	5.1	8,295,600	688	
20	4.4	8,136,000	650	
21		8,106,400	654	
22	3.0	7,866,000	794	
23	2.8	8,748,400	638	
24	2.8	8,074,400	620	
25	2.4	7,982,400	600	
26	2.8	8,360,400	652	
27	22.5	8,630,800	947	
28	18.1	7,668,000	967	
29				
30				
31				



**Waste Water Reporting Sheet**  
City of Binghamton New York Water Filtration Plant  
31-Mar-09

	Raw Daily Avg	Raw Flow MGD	Alum #/day	Monthly Reporting Totals
1		8,342,400	1014	
2	12.66	8,864,400	1120	Raw Water Turbidity
3	7.43	7,798,000	930	17.7
4	5.62	7,522,000	807	Raw Water Flow Total
5	5.32	8,328,000	833	252,481,200
6	5.35	8,468,800	841	PCH-180 Gals Used
7	19.77	8,521,600	1015	10,010
8	35.3	8,175,200	1274	Alum Total #'s
9	111.66	8,309,200	1698	29,954
10	56.61	7,996,400	1487	
11	51.17	7,286,400	1251	
12	23.71	8,240,400	1148	
13	21.12	7,869,600	989	
14	19.28	8,077,200	947	
15	12.84	8,173,200	952	
16	9.86	8,698,800	1018	
17	9	8,082,400	938	
18	7.5	7,808,800	862	
19	13.63	7,750,000	978	
20	10.31	8,200,000	996	
21	12.15	7,819,600	952	
22	12.03	8,031,200	982	
23	9.48	8,591,600	1085	
24	9.47	7,804,200	938	
25	7.37	7,956,200	791	
26	5.26	8,244,000	682	
27	4.9	8,430,800	697	
28	4.9	7,982,000	669	
29	5.99	8,257,600	591	
30	12.28	8,556,000	775	
31	9.34	8,295,200	694	

# Waste Water Reporting Sheet

30-Apr-09

	Daily Avg. Raw turb	Raw flow in Gals.	Alum #/day	Monthly Reporting Totals
1		7,305,600	619	
2	7.46	7,701,200	619	Raw Water Turbidity
3	16.07	7,736,800	712	5.6
4	24.38	6,724,800	907	Raw Water Flow Total
5	13.65	7,436,400	900	230,650,900.00
6	12.01	7,004,000	815	PCH-180 Gals Used
7	10.94	7,468,400	890	7,017
8	7.15	7,676,400	671	Alum Total #'s
9	5.50	7,084,800	568	20,997
10	4.26	7,891,600	658	
11	4.35	7,026,800	584	
12	4.38	8,023,600	643	
13	3.11	7,277,200	529	
14	2.93	7,830,000	567	
15	2.93	7,230,000	548	
16	2.61	6,986,800	511	
17	2.70	8,024,800	523	
18	2.58	7,465,200	556	
19	2.69	7,353,200	553	
20	4.61	8,470,400	713	
21	6.12	8,062,000	778	
22	3.32	8,064,800	689	
23	3.15	8,048,400	637	
24	1.83	7,491,600	630	
25	2.34	7,300,800	751	
26	1.80	7,658,400	804	
27	2.62	9,183,200	976	
28	1.83	9,371,400	972	
29	1.78	7,532,000	815	
30	2.48	8,220,300	859	
31				



# Waste Water Reporting Sheet

31-May-09

	Daily Avg. Raw turb	Raw flow in Gals.	Alum #/day	Monthly Reporting Totals
1		7,007,400	729	
2	2.39	7,665,700	758	Raw Water Turbidity
3	2.16	7,214,100	743	8.6
4	2.18	8,405,200	924	Raw Water Flow Total
5	2.55	8,145,000	852	238,110,400
6	3.16	8,748,500	846	PCH-180 Gals Used
7	3.62	7,223,800	646	8,296
8	2.45	7,735,400	694	Alum Total #'s
9	3.08	7,564,000	665	24,825
10	3.52	7,392,900	677	
11	1.95	7,263,300	676	
12	2.06	7,997,100	773	
13	3.16	7,014,700	677	
14	2.86	7,968,100	760	
15	2.07	8,532,600	783	
16		7,359,500	926	
17	81.81	7,428,800	1195	
18	22.17	7,817,500	987	
19	8.35	6,994,400	727	
20	6.28	7,582,800	812	
21	5.40	8,028,900	880	
22	3.66	8,359,400	853	
23	3.25	7,610,400	713	
24	16.54	7,931,500	951	
25	10.14	7,287,500	822	
26	5.38	7,983,200	793	
27	7.59	8,594,400	877	
28	5.02	7,308,900	686	
29	14.76	7,705,500	853	
30	13.01	7,088,300	793	
31	9.56	7,151,600	754	

# Waste Water Reporting Sheet

30-Jun-09

	Daily Avg. Raw turb	Raw flow in Gals.	Alum #/day	Monthly Reporting Totals
1		7,261,800	793	
2	5.40	7,240,000	805	Raw Water Turbidity
3	4.56	8,164,300	858	18.0
4	4.36	7,148,100	696	Raw Water Flow Total
5	5.26	7,718,000	725	223,743,600.00
6	5.15	7,580,800	747	PCH-180 Gals Used
7	5.34	8,111,600	793	9,352
8	5.30	9,071,300	858	Alum Total #'s
9	6.10	7,258,500	722	27,986
10	6.99	7,665,500	826	
11	4.66	7,333,200	802	
12	18.84	8,396,400	975	
13	6.63	7,487,200	817	
14	5.95	7,151,100	790	
15	4.67	7,217,400	836	
16	4.66	7,812,100	923	
17	4.90	7,963,400	944	
18	4.16	7,249,800	826	
19	4.90	7,133,000	874	
20	95.52	7,127,500	1,216	
21	144.24	6,775,900	1,261	
22	33.97	7,168,500	1,280	
23	21.51	7,334,200	1,086	
24	12.36	7,433,900	999	
25	8.48	7,316,800	967	
26	7.69	8,193,500	1,087	
27	17.38	6,772,300	926	
28	44.96	6,865,800	1,186	
29	17.34	6,987,800	1,248	
30	11.74	6,803,900	1,120	
31				

# Waste Water Reporting Sheet

City of Binghamton New York Water Filtration Plant

31-Jul-09

	Average Turbidity Raw	Raw flow	Alum #/day	Monthly Reporting Totals
1		7,097,100	950	
2	7.74	7,251,300	818	Raw Water Turbidity
3	7.94	7,180,900	868	5.1
4	9.57	6,344,000	760	Raw Water Flow Total
5	8.69	7,209,500	844	219,126,700.00
6	6.58	6,555,600	790	PCH-180 Gals Used
7	6.31	7,649,200	900	8,894
8	8.66	6,534,900	832	Alum Total #'s
9	6.17	6,805,300	817	26,616
10	5.03	7,122,800	784	
11	4.70	7,118,100	766	
12	4.43	7,039,900	773	
13	4.39	6,233,000	708	
14	4.62	7,177,200	790	
15	3.58	6,822,800	759	
16	4.29	7,344,300	802	
17	3.83	7,390,300	819	
18	3.56	7,018,800	764	
19	3.20	6,382,900	722	
20	2.87	6,823,500	814	
21	3.47	7,447,500	860	
22	3.20	7,113,900	838	
23	3.40	7,362,200	880	
24	3.76	7,212,700	903	
25	3.66	7,415,000	934	
26	3.67	6,727,600	810	
27	4.43	7,136,700	1,016	
28	4.11	7,606,100	1,186	
29	5.36	7,318,700	1,148	
30	5.12	7,367,100	1,031	
31	8.13	7,317,800	930	

# Waste Water Reporting Sheet

City of Binghamton New York Water Filtration Plant

31-Aug-09

	Average Turbidity Raw	Raw flow	Alum #/day	Monthly Reporting Totals
1		6,592,200	828	
2	12.08	6,802,500	948	Raw Water Turbidity
3	9.77	7,004,000	988	11.9
4	14.94	7,002,800	1089	Raw Water Flow Total
5	9.92	6,903,300	981	220,606,500
6	6.22	7,262,700	906	PCH-180 Gals Used
7	5.16	7,304,300	966	10,347
8	5.25	6,780,000	897	Alum Total #'s
9	5.64	6,619,300	809	30,962
10	9.84	7,038,400	927	
11	67.09	6,924,000	1167	
12	17.33	7,236,700	1092	
13	8.99	7,514,900	804	
14	5.40	7,582,000	995	
15	4.97	7,034,100	911	
16	5.26	7,233,400	944	
17	5.21	7,978,000	1192	
18	5.72	8,037,900	1372	
19	24.25	7,292,800	1361	
20	4.66	7,412,600	1241	
21	4.44	7,044,800	923	
22	4.15	7,642,200	982	
23	37.91	7,649,400	1236	
24	22.99	6,220,900	1057	
25	13.07	7,211,800	942	
26	5.95	6,200,000	878	
27	6.20	7,274,400	870	
28	4.68	7,674,900	936	
29	11.76	6,529,800	887	
30	7.96	7,177,900	962	
31	9.71	6,424,500	871	

**Waste Water Reporting Sheet**  
City of Binghamton New York Water Filtration Plant  
30-Sep-09

	Avg. Raw Turbidity	Raw Flow Totals	Filtered Flow Totals	Alum #/day	Monthly Reporting Totals
1		6,840,200	6,963,700	917	
2	5.34	6,976,200	6,833,900	859	Raw Water Turbidity
3	4.31	6,598,400	6,966,800	789	3.3
4	3.78	7,604,300	7,440,100	932	Raw Water Flow Total
5	3.39	7,093,500	6,875,600	891	205,869,200
6	3.58	6,566,700	6,792,500	862	Filtered Water Total
7	3.21	7,167,200	6,755,100	988	207,431,400
8	3.31	6,708,300	6,857,300	878	PCH-180 Gals Used
9	3.04	6,960,700	7,185,000	882	8,220
10	2.94	7,074,500	6,907,300	876	Alum Total #'s
11	3.50	7,683,400	7,470,400	1079	24,598
12	3.06	7,214,800	7,401,400	950	
13	2.84	6,665,100	6,806,000	893	
14	2.99	6,816,900	6,840,500	946	
15	2.94	6,829,900	6,927,800	920	
16	3.04	6,541,000	6,890,900	907	
17	2.75	6,949,400	6,896,400	930	
18	3.01	6,845,000	6,926,900	865	
19	3.52	6,476,700	6,680,000	712	
20	3.01	6,899,800	6,793,900	828	
21	2.87	6,526,600	6,765,200	712	
22	2.60	6,981,100	6,831,800	757	
23	2.82	6,819,300	6,823,900	710	
24	3.06	7,101,300	6,918,300	720	
25	2.69	6,223,700	6,722,900	580	
26	2.71	6,901,200	6,774,700	636	
27	2.59	6,802,300	6,671,300	663	
28	4.09	6,389,100	6,823,600	596	
29	4.41	6,469,600	6,799,600	653	
30	3.55	7,143,000	7,088,600	667	
31					



**Waste Water Reporting Sheet**  
City of Binghamton New York Water Filtration Plant  
30-Oct-09

	Avg. Raw Turbidity	Raw Flow Totals	Filtered Flow Totals	Alum #/day	Monthly Reporting Totals
1		6,901,700	7,429,600	656	
2	2.44	7,281,400	7,010,300	669	Raw Water Turbidity
3	2.34	6,514,500	6,840,400	570	13.0
4	2.16	6,784,200	6,825,700	558	Raw Water Flow Total
5	2.17	6,902,900	6,727,200	583	208,154,900
6	2.07	6,896,700	6,957,800	583	Filtered Water Total
7	2.99	7,035,000	6,919,700	582	212,352,200
8	2.01	6,957,700	6,864,700	577	PCH-180 Gals Used
9	1.93	6,766,000	6,741,600	575	7,194
10	1.87	6,426,500	6,831,900	573	Alum Total #'s
11	1.86	6,558,800	6,861,200	632	21,529
12	1.77	6,588,300	6,690,400	642	
13	1.40	6,785,100	6,837,200	635	
14	1.52	6,696,700	6,897,000	632	
15	1.32	6,414,900	6,822,000	544	
16	1.34	7,125,600	6,707,700	583	
17	1.66	7,104,300	6,787,100	594	
18	1.50	6,317,400	6,807,100	538	
19	1.79	6,621,000	6,805,800	638	
20	1.45	6,658,800	6,827,300	572	
21	1.44	6,696,200	6,904,300	549	
22	1.49	6,589,800	6,789,800	560	
23		6,769,500	6,857,600	587	
24	84.89	6,621,200	6,881,200	883	
25	50.08	6,462,200	6,801,600	1,152	
26	28.83	6,596,100	6,738,400	1,071	
27	15.84	6,973,800	6,847,300	884	
28	100.46	6,169,400	6,876,300	1,061	
29		6,692,500	6,888,500	984	
30	25.91	6,565,600	6,773,000	1,006	
31	18.12	6,681,100	6,802,500	856	

# Waste Water Reporting Sheet

City of Binghamton New York Water Filtration Plant  
30-Nov-09

	Avg. Raw Turbidity	Raw Flow Totals	Filtered Flow Totals	Alum #/day	Monthly Reporting Totals
1		6,719,000	7,078,000	788	
2	9.30	6,568,100	6,654,200	769	Raw Water Turbidity
3	8.41	6,538,500	6,835,300	722	4.7
4	6.41	7,994,700	6,899,200	890	Raw Water Flow Total
5	5.71	6,294,900	6,750,700	685	201,380,200
6	5.28	6,669,100	6,921,500	668	Filtered Water Total
7	4.69	6,874,100	6,796,400	679	205,067,800
8	3.86	6,565,000	6,965,100	629	PCH-180 Gals Used
9	4.44	7,256,000	6,694,000	722	6,569
10	3.80	6,997,500	6,846,500	674	Alum Total #'s
11	2.67	6,305,500	6,982,300	606	19,658
12	2.40	6,293,600	6,851,500	587	
13	2.35	6,939,700	6,893,000	667	
14	1.99	6,403,700	6,872,500	564	
15	2.10	6,524,000	6,791,400	538	
16	2.48	7,774,400	6,815,200	628	
17	2.10	6,113,600	6,892,500	507	
18	2.28	6,458,700	6,920,100	529	
19	2.55	6,490,000	6,792,800	574	
20	26.78	7,530,000	6,829,600	937	
21	7.32	6,676,400	6,809,800	724	
22	5.81	6,570,900	6,735,800	718	
23	4.66	6,384,700	6,746,500	679	
24	3.72	6,618,100	6,855,300	629	
25	3.02	6,719,200	6,900,600	629	
26	2.25	6,938,800	6,872,900	606	
27	2.75	6,174,100	6,693,400	543	
28	3.26	6,892,500	6,843,900	632	
29	2.43	6,616,200	6,822,000	562	
30	2.64	6,479,200	6,705,800	573	
31					

**Waste Water Reporting Sheet**  
City of Binghamton New York Water Filtration Plant  
31-Dec-09

	Raw Turbidity (Daily Avg.)	Raw Flow Totals	Filtered Flow Totals	Alum #/day	Monthly Reporting Totals
1		6,863,100	6,952,200	579	
2	2.22	7,145,100	6,953,600	551	Raw Turbidity (Monthly Avg.)
3	2.66	6,419,000	6,898,300	564	4.1
4	2.22	6,875,700	6,921,600	586	Raw Water Flow Total
5	2.23	6,373,000	6,835,500	537	210,538,300
6	2.68	6,487,800	6,812,500	536	Filtered Water Total
7	2.60	6,613,900	6,878,900	560	218,270,100
8	2.04	7,139,900	6,964,500	586	PCH-180 Gals Used
9	2.95	6,382,000	6,929,200	540	6,555
10	4.74	6,445,500	6,935,400	686	Alum Total #'s
11	2.76	6,694,600	6,916,100	501	19,615
12	2.25	7,046,900	6,959,400	626	
13	6.14	6,543,700	6,962,400	613	
14		6,756,800	6,919,100	959	
15	12.49	6,819,800	7,063,500	865	
16	7.73	6,643,100	7,046,000	769	
17	4.15	6,586,500	7,226,200	702	
18	3.40	6,751,500	6,960,400	660	
19	2.82	7,052,300	7,101,500	602	
20	2.41	7,200,900	7,008,800	609	
21	2.54	6,764,300	7,072,300	582	
22	2.19	6,902,500	7,102,100	581	
23	4.71	7,248,400	7,315,100	617	
24	2.40	6,650,400	7,156,900	577	
25	2.52	6,626,000	7,087,300	557	
26	8.88	6,647,600	7,186,400	643	
27	10.69	6,996,400	7,032,700	914	
28	4.34	7,108,000	7,225,000	688	
29	4.63	6,341,200	7,206,800	573	
30	4.84	7,281,600	7,287,700	633	
31	3.81	7,130,800	7,352,700	619	



# 2010 Flow Review

Raw Water	Finished Water	Waste Water	PCH	Turbidity	Month
207,574,800	222,398,400	N/A	6,416.0	21.30	Jan
186,370,800	201,125,100	N/A	4,534.0	2.80	Feb
204,678,400	215,759,000	N/A	8,368.0	27.10	Mar
200,192,800	204,658,200	N/A	8,233.0	7.50	Apr
214,180,600	211,180,600	N/A	7,577.0	4.50	May
208,235,000	204,134,100	N/A	9,160.0	6.40	Jun
222,929,600	220,457,100	N/A	10,322.0	10.00	Jul
207,836,800	207,848,700	N/A	10,107.0	6.20	Aug
198,490,200	198,490,200	N/A	8,530.0	4.50	Sep
198,144,000	202,794,600	N/A	8,732.0	8.90	Oct
194,542,800	198,234,800	N/A	6,625.0	6.80	Nov
205,945,200	219,551,400	N/A	6,610.0	5.80	Dec
2,449,121,000 Gallons	2,506,632,200 Gallons	0 Gallons	95,214.0 Gallons	9.32 AVG NTU	
		Installed 2011			

# Waste Water Reporting Sheet

City of Binghamton

Water Treatment Plant

2-Jan-10

	Raw Turbidity (Daily Avg.)	Raw Flow Totals	Filtered Flow Totals	Alum #/day	Monthly Reporting Totals
1		6,866,200	7,180,500	596	
2	2.54	6,708,600	7,250,700	561	Raw Turbidity (Monthly Avg.)
3	2.18	7,163,600	7,115,500	605	21.3
4	2.39	7,065,600	7,602,600	593	Raw Water Flow Total
5	1.98	6,298,800	7,049,900	533	207,574,800
6	1.74	7,373,600	7,359,200	575	Flitered Water Total
7	1.72	6,573,100	7,120,900	432	222,398,400
8	1.72	7,008,500	7,183,400	474	PCH-180 Gals Used
9	1.67	6,527,200	7,095,700	432	6,416
10	1.33	6,547,600	7,133,600	423	Alum Total #'s
11	1.33	6,365,000	7,036,100	360	19,200
12	1.32	6,631,000	7,207,900	373	
13	1.32	6,893,200	7,176,200	399	
14	1.32	6,478,400	7,173,800	420	
15	1.32	6,968,800	7,192,800	449	
16	1.17	6,536,800	7,127,700	432	
17	2.38	6,720,800	7,402,500	502	
18	24.37	6,190,000	6,816,000	1033	
19	8.43	6,466,000	7,146,900	768	
20	6.22	6,622,000	7,211,300	727	
21	3.28	6,511,200	7,117,500	634	
22		6,642,400	7,094,800	616	
23		7,077,400	7,179,700	574	
24	1.86	6,743,400	7,255,300	489	
25	219.62	6,280,000	6,957,700	1476	
26	154.39	6,884,400	7,115,400	1120	
27	60.13	6,692,400	7,234,200	821	
28	34.92	6,425,600	7,008,200	617	
29	25.76	6,860,400	7,081,400	769	
30	17.89	6,803,600	7,219,500	743	
31	10.89	6,649,200	7,551,500	654	

# Waste Water Reporting Sheet

City of Binghamton

Water Treatment Plant

2-Feb-10

	Raw Turbidity (Daily Avg.)	Raw Flow Totals	Filtered Flow Totals	Alum #/day	Monthly Reporting Totals
1		6,270,600	7,068,700	694	
2	6.14	6,993,000	7,261,200	709	Raw Turbidity (Monthly Avg.)
3	5.27	6,839,200	7,129,600	659	2.8
4	5.09	6,663,600	7,145,600	660	Raw Water Flow Total
5	3.48	6,567,400	7,270,500	599	186,370,800
6	3.35	6,846,800	7,217,600	562	Flitered Water Total
7	3.04	6,413,200	7,189,400	504	201,125,100
8	3.09	6,583,200	7,163,800	646	PCH-180 Gals Used
9	2.96	7,030,000	7,284,800	534	4,534
10	2.37	6,506,800	7,277,100	487	Alum Total #'s
11	3.38	6,792,000	7,284,000	443	13,567
12	3.07	6,468,000	7,279,700	404	
13	2.32	6,701,600	7,387,800	402	
14	2.46	6,615,000	7,137,800	409	
15	2.24	6,742,800	7,234,300	420	
16	2.17	6,462,800	7,177,200	406	
17	2.12	6,899,400	7,367,000	416	
18	1.86	6,576,400	7,172,200	380	
19	1.84	6,629,800	7,144,000	349	
20	2.22	7,455,800	8,818,000	433	
21	2.12	6,518,800	6,051,000	383	
22	2.41	6,682,400	6,916,800	400	
23	2.21	6,500,400	7,034,300	391	
24	2.12	6,529,600	7,144,600	477	
25	2.13	6,477,200	6,692,500	441	
26	2.25	6,753,800	7,047,800	458	
27	2.49	6,692,600	7,212,900	484	
28	2.49	6,158,600	7,014,900	417	
29					
30					
31					

# Waste Water Reporting Sheet

City of Binghamton

Water Treatment Plant

March-2010

	Raw Turbidity (Daily Avg.)	Raw Flow Totals	Filtered Flow Totals	Alum #/day	Monthly Reporting Totals
1		6,816,800	6,973,500	468	
2	1.94	6,503,000	7,104,500	431	Raw Turbidity (Monthly Avg.)
3	2.47	6,972,200	7,032,200	465	27.1
4	2.35	6,608,800	7,129,200	457	Raw Water Flow Total
5	2.43	6,594,400	6,986,300	459	204,678,400
6	1.99	6,479,800	7,016,200	453	Filtered Water Total
7	2.34	6,814,800	7,029,000	508	215,759,000
8	6.14	6,316,800	6,938,000	584	PCH-180 Gals Used
9	13.86	7,170,600	7,085,000	728	8,368
10	20.31	6,394,200	7,083,400	761	Alum Total #'s
11	78.81	6,563,600	7,011,400	1052	25,041
12	79.70	6,837,600	6,976,900	1241	
13	52.20	6,521,600	7,059,500	1204	
14	36.95	6,331,400	6,638,600	1187	
15	19.38	6,889,000	7,076,900	970	
16	18.12	6,224,000	6,848,600	772	
17	20.59	6,456,400	7,022,000	706	
18	18.05	6,656,600	7,005,600	780	
19	14.68	6,789,000	6,966,500	714	
20	13.44	6,515,600	7,041,500	685	
21	15.70	6,479,200	6,854,400	701	
22	17.64	6,911,600	6,874,300	791	
23	78.14	6,426,800	6,983,900	1136	
24	48.92	6,608,200	6,933,500	958	
25	48.60	6,733,000	6,926,400	1076	
26	28.69	6,274,000	6,914,800	954	
27	22.43	6,804,000	6,877,000	927	
28	15.54	6,654,000	6,780,000	898	
29	16.97	6,500,000	6,912,400	934	
30	66.92	6,367,000	6,896,300	1008	
31	47.71	6,464,400	6,781,200	1033	

# Waste Water Reporting Sheet

City of Binghamton

Water Treatment Plant

April-2010

	Raw Turbidity (Daily Avg.)	Raw Flow Totals	Filtered Flow Totals	Alum #/day	Monthly Reporting Totals
1		6,461,800	6,898,100	831	
2	23.28	6,256,200	6,873,000	766	Raw Turbidity (Monthly Avg.)
3	17.35	6,722,400	6,810,900	853	7.5
4	13.14	6,820,000	6,905,500	777	Raw Water Flow Total
5	10.17	6,335,200	6,653,300	711	200,192,800
6	9.82	6,430,000	6,815,800	779	Filtered Water Total
7	8.61	6,506,600	6,843,100	871	204,658,200
8	8.57	6,412,600	6,745,900	805	PCH-180 Gals Used
9		6,468,000	6,724,400	895	8,233
10	11.36	6,964,000	6,845,200	910	Alum Total #'s
11	8.24	6,183,600	6,725,200	903	24,637
12	7.97	6,738,400	6,810,800	917	
13	5.36	6,658,400	6,794,400	808	
14	4.32	6,667,600	6,936,600	814	
15	3.84	6,820,000	6,760,500	795	
16	4.57	6,816,600	6,901,000	831	
17	6.53	6,642,800	6,744,100	834	
18	5.70	6,787,000	6,828,400	902	
19	4.16	6,460,800	6,806,600	948	
20	5.18	7,050,400	6,851,400	834	
21	3.78	6,996,400	6,602,300	716	
22	3.61	6,666,000	6,845,500	662	
23	3.92	6,944,600	6,861,400	712	
24	3.38	6,833,000	6,809,000	758	
25	2.68	6,335,200	6,756,000	758	
26	7.75	6,666,400	6,757,800	846	
27	11.32	7,134,200	6,885,000	991	
28	7.60	6,944,600	7,013,300	810	
29	4.37	6,508,400	6,952,100	772	
30	3.15	6,961,600	6,901,600	828	
31					

# Waste Water Reporting Sheet

City of Binghamton

Water Treatment Plant

May-2010

	Raw Turbidity (Daily Avg.)	Raw Flow Totals	Filtered Flow Totals	Alum #/day	Monthly Reporting Totals
1		7,438,400	7,236,200	828	
2	4.53	6,342,000	6,489,200	792	Raw Turbidity (Monthly Avg.)
3	3.51	6,938,800	6,840,100	764	4.5
4	2.73	6,739,600	6,719,900	740	Raw Water Flow Total
5	4.03	6,437,000	6,960,100	774	214,111,800
6	3.72	6,956,200	6,588,800	937	Filtered Water Total
7	2.97	7,260,400	6,892,200	885	211,180,600
8	8.69	7,448,400	6,917,800	848	PCH-180 Gals Used
9	4.86	6,373,000	6,491,100	773	7,577
10	2.44	6,661,400	6,667,300	719	Alum Total #'s
11	2.39	6,866,600	6,811,400	701	22,673
12	4.66	6,951,400	6,950,200	644	
13	3.15	6,979,200	6,922,900	667	
14	3.29	7,722,000	6,801,700	694	
15	3.36	6,923,600	6,779,000	574	
16	3.27	6,634,000	6,756,100	578	
17	3.19	6,812,800	6,744,400	609	
18	6.44	6,809,600	6,819,000	587	
19	10.24	6,980,800	6,877,700	737	
20	3.46	6,782,800	6,817,800	642	
21	3.00	7,904,000	6,873,800	686	
22	3.29	6,841,600	6,794,600	610	
23	4.11	6,592,800	6,770,900	571	
24	3.70	6,996,400	6,787,100	705	
25	3.12	6,871,200	6,868,600	724	
26	3.97	6,777,200	6,905,800	808	
27	4.00	6,633,000	6,815,800	713	
28	3.77	6,868,600	6,848,500	801	
29	3.92	6,809,600	6,860,300	835	
30	5.62	6,800,800	6,794,100	844	
31	15.59	6,958,600	6,778,200	883	



# Waste Water Reporting Sheet

City of Binghamton

Water Treatment Plant

June-2010

	Raw Turbidity (Daily Avg.)	Raw Flow Totals	Filtered Flow Totals	Alum #/day	Monthly Reporting Totals
1		6,809,800	6,826,100	1,064	
2	5.82	6,825,600	6,842,300	1,044	Raw Turbidity (Monthly Avg.)
3	5.80	7,134,800	6,918,200	1,282	6.4
4	6.95	7,311,200	6,854,600	1,423	Raw Water Flow Total
5	5.50	8,020,400	6,876,100	1,469	208,235,000
6	8.48	6,861,400	6,768,300	1,103	Filtered Water Total
7	5.02	6,809,800	6,657,300	955	204,134,100
8	5.54	7,041,200	6,813,600	943	PCH-180 Gals Used
9	6.59	6,807,600	6,837,300	913	9,160
10	5.83	6,901,800	6,795,600	881	Alum Total #'s
11	5.06	7,230,200	6,739,200	816	27,412
12	5.86	6,728,400	6,759,500	689	
13	8.42	6,756,000	6,747,900	909	
14	10.82	6,780,000	6,797,800	971	
15	6.28	6,648,800	6,721,400	800	
16	5.87	7,170,000	6,864,500	702	
17	11.58	6,486,000	6,782,700	845	
18	5.50	7,484,400	7,109,100	789	
19	5.77	6,384,400	6,480,600	673	
20	4.38	6,537,600	6,756,600	723	
21	3.68	6,993,000	6,832,100	812	
22	3.25	6,621,000	6,763,700	733	
23	18.59	7,062,000	6,952,500	896	
24	13.47	7,425,800	6,746,000	986	
25	3.68	6,805,800	6,857,900	763	
26	3.56	6,569,400	6,762,200	760	
27	4.13	7,037,800	6,736,300	934	
28	3.97	7,528,400	6,859,100	925	
29	3.22	6,410,800	6,843,300	742	
30	2.88	7,051,600	6,832,300	867	
31					

# Waste Water Reporting Sheet

City of Binghamton

Water Treatment Plant

July-2010

	Raw Turbidity (Daily Avg.)	Raw Flow Totals	Filtered Flow Totals	Alum #/day	Monthly Reporting Totals
1		6,896,000	6,903,500	929	
2	3.48	7,505,200	6,739,400	877	Raw Turbidity (Monthly Avg.)
3	3.42	6,854,200	6,803,400	837	10.0
4	5.46	6,473,800	6,677,000	765	Raw Water Flow Total
5	3.61	7,116,000	6,834,800	834	222,929,600
6	3.48	6,813,600	7,036,200	830	Filtered Water Total
7	3.85	9,339,600	9,356,400	1207	220,457,100
8	3.75	8,829,200	8,988,800	1184	PCH-180 Gals Used
9	4.24	7,135,200	6,769,400	944	10,322
10	5.08	8,355,200	7,713,400	1398	Alum Total #'s
11	5.34	6,540,800	6,730,600	1091	30,888
12	4.39	7,205,600	7,157,000	1100	
13	4.39	7,382,000	7,164,400	1078	
14	4.87	8,110,000	7,957,800	1125	
15	99.39	7,228,600	7,224,000	1197	
16	15.08	6,498,000	7,065,400	866	
17	7.12	7,446,000	7,113,200	1001	
18	6.76	7,857,600	7,475,400	1073	
19	6.33	6,747,400	7,062,200	1010	
20	6.03	7,355,600	7,344,800	1056	
21	6.33	7,980,300	6,987,600	957	
22	7.69	6,887,300	6,779,200	1040	
23	7.48	6,961,400	6,825,400	1009	
24	34.51	6,597,600	6,739,200	1084	
25	12.43	6,817,400	6,582,200	1000	
26	7.42	6,556,000	6,736,400	874	
27	5.49	6,436,200	6,776,200	820	
28	6.28	6,638,000	6,743,000	842	
29	5.71	6,767,000	6,872,000	967	
30	6.09	6,606,400	6,608,600	809	
31	5.56	6,992,400	6,690,200	1084	



# Waste Water Reporting Sheet

City of Binghamton

Water Treatment Plant

August-2010

	Raw Turbidity (Daily Avg.)	Raw Flow Totals	Filtered Flow Totals	Alum #/day	Monthly Reporting Totals
1		6,897,300	6,987,400	1090	
2	8.50	6,176,900	6,219,200	964	Raw Turbidity (Monthly Avg.)
3	4.71	6,550,200	6,616,000	922	6.2
4	5.25	6,770,800	6,723,800	918	Raw Water Flow Total
5	5.19	6,550,200	6,742,000	854	207,836,800
6	4.82	6,703,800	6,842,600	855	Filtered Water Total
7	4.59	6,886,600	6,679,600	935	207,848,700
8	4.56	6,637,400	6,710,600	1016	PCH-180 Gals Used
9	4.62	6,772,000	6,717,800	1114	10,107
10	5.00	6,894,800	6,849,400	1147	Alum Total #'s
11	5.65	6,740,400	6,709,600	1196	30,244
12	6.92	6,770,000	6,616,800	1059	
13	7.08	6,806,000	6,794,700	997	
14	5.27	6,917,200	6,968,000	997	
15	5.18	6,950,800	6,491,600	1047	
16	4.98	6,619,000	6,755,600	946	
17	4.43	6,692,600	6,730,800	981	
18	4.92	6,587,200	6,652,200	954	
19	4.86	6,637,600	6,687,400	988	
20	4.66	6,994,000	6,779,400	969	
21	4.66	6,518,000	6,658,000	1094	
22	4.52	6,936,000	6,596,800	1203	
23	7.62	6,903,200	6,604,400	1032	
24	13.94	6,604,400	6,787,600	828	
25	14.50	6,616,400	6,449,400	983	
26	10.04	6,082,800	6,672,800	838	
27	7.89	7,098,000	6,945,800	898	
28	5.87	6,124,400	6,618,200	790	
29	5.31	6,936,400	6,718,600	861	
30	4.90	6,446,800	6,599,200	884	
31	4.30	7,015,600	6,923,400	884	

# Waste Water Reporting Sheet

City of Binghamton

Water Treatment Plant

September-2010

	Raw Turbidity (Daily Avg.)	Raw Flow Totals	Filtered Flow Totals	Alum #/day	Monthly Reporting Totals
1		6,208,800	6,802,400	790	
2	4.31	7,134,000	6,719,800	1047	Raw Turbidity (Monthly Avg.)
3	4.65	6,795,600	6,822,800	1050	4.5
4	4.76	6,641,600	6,766,800	880	Raw Water Flow Total
5	3.99	7,034,000	6,723,600	1064	198,831,600
6	3.91	6,684,000	6,583,600	1014	Filtered Water Total
7	3.12	6,724,800	6,740,400	863	198,490,200
8	5.57	6,686,000	6,719,800	933	PCH-180 Gals Used
9	2.44	6,589,600	6,648,800	865	8,530
10	2.76	6,608,800	6,635,000	784	Alum Total #'s
11	2.83	6,611,200	6,661,000	745	25,527
12	2.77	6,232,800	6,580,800	736	
13	2.68	6,495,600	6,578,000	677	
14	3.03	6,804,800	6,637,000	748	
15	2.69	6,608,000	6,577,600	628	
16	2.50	6,644,000	6,611,200	622	
17	2.32	6,221,600	6,609,600	557	
18	2.13	6,625,600	6,587,200	557	
19	2.52	6,572,400	6,570,800	607	
20	2.61	6,539,600	6,658,200	751	
21	2.46	6,544,400	6,711,800	882	
22	2.50	7,295,600	6,624,000	1057	
23	2.40	6,530,400	6,433,200	975	
24	2.67	6,552,000	6,585,800	981	
25	2.74	6,302,000	6,434,200	920	
26	2.88	6,669,200	6,422,800	1043	
27	3.10	6,478,400	6,333,600	936	
28	2.98	6,612,000	6,551,000	951	
29	2.67	6,704,800	6,563,400	862	
30	43.21	6,680,000	6,596,000	1002	
31					

# Waste Water Reporting Sheet

City of Binghamton

Water Treatment Plant

October-2010

	Raw Turbidity (Daily Avg.)	Raw Flow Totals	Filtered Flow Totals	Alum #/day	Monthly Reporting Totals
1		6,654,400	6,429,400	1294	
2	26.10	6,990,000	6,502,600	1146	Raw Turbidity (Monthly Avg.)
3	35.75	6,147,600	6,352,400	1229	8.9
4	17.49	6,526,000	6,586,400	1221	Raw Water Flow Total
5		6,249,200	6,513,800	1006	198,144,000
6		6,778,800	6,521,400	1045	Filtered Water Total
7	11.84	6,370,400	6,632,400	862	202,794,600
8	8.90	6,482,000	6,575,200	841	PCH-180 Gals Used
9	8.30	6,546,000	6,375,600	848	8,732
10	8.47	6,259,600	6,559,000	778	Alum Total #'s
11	6.71	6,138,400	6,553,000	748.7	26,129
12	5.08	6,281,600	6,560,000	789.8	
13	4.19	6,505,200	6,582,800	826	
14	3.74	6,407,600	6,505,200	787	
15	7.62	6,134,400	6,586,000	817	
16	6.46	6,470,400	6,400,200	904	
17		6,350,800	6,602,600	748	
18	6.68	6,198,000	6,705,000	747.3	
19	4.79	6,359,200	6,516,000	767.5	
20	4.13	6,508,800	6,530,400	737	
21	4.13	6,240,000	6,592,400	679	
22	2.99	6,166,800	6,484,400	660	
23	2.60	6,446,800	6,651,600	666	
24	2.28	6,208,400	6,468,200	674	
25	2.52	6,543,200	6,553,200	656	
26	14.08	6,209,600	6,621,600	840	
27	18.54	6,321,200	6,583,800	910	
28	9.97	6,430,800	6,663,600	794	
29	8.48	6,422,400	6,523,400	737	
30	5.38	6,465,200	6,498,800	668	
31	4.03	6,331,200	6,564,200	703	

# Waste Water Reporting Sheet

City of Binghamton

Water Treatment Plant

November-2010

	Raw Turbidity (Daily Avg.)	Raw Flow Totals	Filtered Flow Totals	Alum #/day	Monthly Reporting Totals
1		6,339,200	6,493,600	697	
2	2.68	6,785,200	6,569,000	680	Raw Turbidity (Monthly Avg.)
3	3.02	6,563,200	6,728,800	605	6.8
4	5.11	6,476,400	6,492,800	674	Raw Water Flow Total
5	6.17	6,669,600	6,595,400	774	194,542,800
6	4.50	6,340,800	6,493,000	660	Filtered Water Total
7	3.76	6,944,000	6,890,400	630	198,234,800
8	3.50	6,350,000	6,508,800	691.5	PCH-180 Gals Used
9	2.83	6,680,800	6,672,800	736.5	6,625
10	2.29	7,749,200	6,746,200	705	Alum Total #'s
11	2.22	6,103,200	6,594,200	544	19,824
12	2.50	6,243,200	6,575,000	551	
13	2.24	6,336,400	6,633,200	579	
14	2.02	6,315,200	6,603,500	563	
15	1.82	7,010,000	6,654,900	635.9	
16	1.72	6,291,200	6,556,200	556.8	
17	66.82	6,418,400	6,629,600	942.9	
18	9.17	6,526,000	6,597,600	776.3	
19	13.26	6,753,600	6,422,400	882.1	
20	4.32	6,554,800	6,712,000	709	
21	3.19	6,250,400	6,566,200	652	
22	2.55	6,564,000	6,605,400	659.2	
23	2.46	6,168,800	6,700,800	577.4	
24	2.55	6,163,600	6,481,000	585	
25	1.95	6,746,000	6,699,600	596	
26	10.92	5,980,400	6,521,200	641	
27	4.02	6,195,200	6,579,400	560	
28	2.72	6,372,400	6,646,000	598	
29	2.50	6,270,400	6,621,800	587.1	
30	23.25	6,381,200	6,644,000	775.3	
31					

# Waste Water Reporting Sheet

City of Binghamton

Water Treatment Plant

December-2010

	Raw Turbidity (Daily Avg.)	Raw Flow Totals	Filtered Flow Totals	Alum #/day	Monthly Reporting Totals
1		6,602,000	9,050,200	828	
2	35.18	6,403,100	5,537,200	985	Raw Turbidity (Monthly Avg.)
3	11.27	6,421,800	5,998,200	784	5.8
4	8.37	6,382,500	6,627,200	691	Raw Water Flow Total
5	6.86	6,578,200	6,731,600	637	205,945,200
6	5.75	6,561,900	6,717,000	644	Filtered Water Total
7	4.50	6,794,800	6,869,600	681	219,551,400
8	3.37	6,268,900	6,828,400	629	PCH-180 Gals Used
9		6,416,900	6,992,000	629	6,610
10	2.72	7,249,600	6,984,400	686	Alum Total #'s
11	2.48	6,216,500	6,950,800	629	19,780
12	26.31	6,850,900	7,011,200	837	
13	18.00	6,784,600	7,071,000	923	
14	6.12	6,444,200	6,971,400	777	
15	4.84	6,564,800	7,087,400	693	
16	3.88	6,688,900	7,062,000	658	
17	2.84	6,123,300	6,969,800	623	
18	2.42	6,474,500	7,385,000	629	
19	2.16	6,294,500	6,756,800	661	
20	2.20	6,792,100	7,004,600	610	
21	1.92	6,667,900	7,233,400	548	
22	1.89	7,088,500	7,749,800	555	
23	1.78	6,848,900	7,238,200	467	
24	1.90	6,808,300	7,366,800	468	
25	1.71	7,448,500	8,080,600	499	
26	1.55	6,378,600	7,093,800	453	
27	1.83	6,529,400	7,157,400	463	
28	1.60	6,649,400	7,198,800	473	
29	1.31	6,628,400	7,156,600	517	
30	1.41	6,868,400	7,176,600	537	
31	1.60	7,114,900	7,493,600	568	

# 2011 Flow Review

Month	Turbidity	PCH	Waste Water	Finished Water	Raw Water
Jan	2.05	5,400.9	N/A	225,719,600	209,812,300
Feb	29.25	6,930.1	N/A	220,033,200	204,973,500
Mar	30.68	9,304.2	N/A	235,754,600	222,641,400
Apr	28.11	8,228.5	N/A	220,723,500	205,829,200
May	26.25	8,080.6	N/A	222,594,000	220,475,700
Jun	13.85	8,696.9	N/A	218,099,400	214,752,300
Jul	2.11	10,452.4	N/A	232,488,800	228,034,200
Aug	24.80	11,327.0	N/A	217,803,600	217,014,000
Sep	16.79	9,678.0	11,262,791	204,740,000	191,897,800
Oct	9.84	7,988.0	16,796,453	207,939,200	202,853,000
Nov	13.90	6,103.0	14,261,873	206,442,000	197,570,200
Dec	25.13	7,437.3	16,178,825	214,063,800	208,670,000
	18.56 AVG NTU	99,626.9 Gallons	58,499,942 Gallons	2,626,401,700 Gallons	2,524,523,600 Gallons



# Waste Water Reporting Sheet

City of Binghamton Water Filtration Plant

Jan-11

Day	Raw Turb Avg.	Raw Flow	Filtered Flow	Pc H180 Gals	Monthly Totals
1		7,106,700	7,649,800	228.0	
2	15.17	6,379,500	7,198,600	293.0	Raw Turb Monthly Avg.
3	3.25	6,620,600	7,141,000	245.0	2.05
4	2.15	6,688,000	7,130,800	192.0	Filtered Water Total
5	2.18	6,809,200	7,259,400	204.0	225,719,600
6	2.15	6,594,800	7,188,000	196.8	Raw Water Total
7	2.13	6,871,700	7,230,200	192.0	209,812,300
8	2.01	6,585,600	7,168,800	183.5	Pc H180 Total
9	2.04	6,349,900	7,146,000	171.8	5,400.9
10	2.11	6,870,100	7,135,000	185.8	
11	1.71	7,002,600	7,121,000	182.8	
12	1.71	7,155,700	7,282,000	182.5	
13	1.35	6,712,400	7,140,400	174.0	
14	1.32	6,961,700	7,151,200	178.3	
15	1.31	6,832,700	7,191,000	175.5	
16	1.31	6,384,900	6,935,600	150.3	
17	1.32	6,234,700	6,898,400	148.5	
18	1.33	6,675,400	7,186,600	156.0	
19	1.31	6,703,600	7,106,800	156.0	
20	1.32	6,437,800	7,209,800	148.5	
21	1.32	6,716,800	7,112,000	153.8	
22	1.32	6,355,100	7,086,200	143.5	
23	1.31	6,710,600	7,179,800	139.5	
24	1.32	6,350,800	7,197,800	142.0	
25	1.34	6,827,800	7,324,800	150.0	
26	1.31	7,754,500	8,568,600	171.0	
27	1.24	6,795,200	7,194,600	151.5	
28	1.29	7,180,100	7,811,000	148.3	
29	1.34	7,246,000	7,451,200	142.5	
30	1.22	6,864,600	7,286,600	152.0	
31	1.22	7,033,200	8,036,600	162.8	

# Waste Water Reporting Sheet

City of Binghamton Water Filtration Plant

Feb-11

Day	Raw Turb Avg.	Raw Flow	Filtered Flow	Pc H180 Gals	Monthly Totals
1		6,851,500	7,594,000	153.5	
2	1.32	6,737,000	7,269,200	152.3	Raw Turb Monthly Avg.
3	1.32	7,578,300	8,159,200	171.0	29.25
4	0.89	6,766,100	7,401,800	156.0	Filtered Water Total
5	3.76	7,580,700	7,828,800	203.3	220,033,200
6	24.26	6,763,300	7,576,800	251.3	Raw Water Total
7	5.82	6,962,700	7,784,600	246.0	204,973,500
8	3.34	7,570,500	8,485,200	233.8	Pc H180 Total
9	3.34	8,737,700	9,175,800	211.8	6,930.1
10	2.13	6,892,000	7,116,200	234.5	
11	1.72	8,307,400	8,956,400	311.8	
12	1.72	7,966,400	8,562,400	184.0	
13	1.71	6,071,900	6,381,200	176.0	
14	5.41	7,929,300	8,432,200	235.0	
15	4.59	7,373,700	7,851,000	212.8	
16	2.13	7,980,900	8,266,600	227.3	
17	21.00	6,609,400	7,230,000	214.0	
18	299.89	7,044,100	7,495,800	512.8	
19	112.11	8,408,300	8,706,800	456.5	
20	18.52	6,714,600	7,150,200	279.0	
21	11.53	6,866,300	7,264,000	276.8	
22	7.86	8,059,400	8,925,400	284.5	
23	7.05	6,585,800	7,228,000	241.3	
24	4.60	6,759,600	7,219,200	228.8	
25	5.00	7,601,300	8,501,400	239.0	
26	4.17	7,428,000	7,573,400	238.0	
27	4.17	7,175,200	7,571,000	214.8	
28	230.28	7,652,100	8,326,600	384.8	
29					
30					
31					



# Waste Water Reporting Sheet

City of Binghamton Water Filtration Plant

Mar-11

Day	Raw Turb Avg.	Raw Flow	Filtered Flow	Pc H180 Gals	Monthly Totals
1		7,310,500	7,751,400	341.0	
2	15.54	7,221,300	7,678,200	279.3	Raw Turb Monthly Avg.
3	9.34	7,287,100	8,091,600	264.0	30.68
4	7.17	8,045,800	8,239,000	287.5	Filtered Water Total
5	45.34	7,569,000	7,722,600	362.8	235,754,600
6	147.33	6,822,800	7,788,000	442.3	Raw Water Total
7	59.06	6,972,300	7,217,800	379.8	222,641,400
8	34.75	7,561,900	7,806,800	408.0	Pc H180 Total
9	28.40	8,102,300	8,613,200	391.8	9,304.2
10	51.69	6,868,100	7,479,000	397.8	
11	150.73	8,050,500	8,399,000	448.3	
12	49.47	7,170,200	7,635,400	371.0	
13	40.13	6,974,200	6,982,200	351.5	
14	26.68	7,927,700	8,601,400	366.5	
15	21.72	7,193,200	7,594,800	317.5	
16	21.31	6,853,800	6,952,800	306.8	
17	19.36	8,070,400	8,558,000	342.5	
18	21.02	6,669,300	7,096,200	260.5	
19	21.34	7,323,100	8,114,200	248.3	
20	23.63	7,314,400	7,160,000	266.8	
21	20.59	6,958,600	7,221,800	270.8	
22	15.78	6,598,000	7,093,800	220.8	
23	11.88	7,393,600	7,908,200	257.8	
24	11.50	6,654,700	7,374,000	219.5	
25	10.63	6,544,500	7,026,800	211.0	
26	10.17	6,403,400	7,069,800	198.8	
27	11.20	6,923,000	7,024,800	201.5	
28	11.38	7,030,900	7,615,200	222.0	
29	8.27	7,038,200	7,475,000	222.0	
30	8.08	7,026,100	7,390,200	230.8	
31	6.87	6,762,500	7,073,400	215.8	

# Waste Water Reporting Sheet

City of Binghamton Water Filtration Plant

Apr-11

Day	Raw Turb Avg.	Raw Flow	Filtered Flow	Pc H180 Gals	Monthly Totals
1		6,742,700	7,234,200	222.0	
2	7.91	6,700,300	7,060,200	229.3	Raw Turb Monthly Avg.
3	7.22	6,694,800	7,079,900	215.0	28.11
4	10.82	6,758,500	7,268,600	225.3	Filtered Water Total
5	76.51	6,658,900	7,376,800	314.3	220,723,500
6	30.40	6,439,200	6,902,600	285.8	Raw Water Total
7	21.65	6,604,400	7,587,600	305.0	205,829,200
8	14.07	7,367,100	7,782,200	221.5	Pc H180 Total
9	9.96	6,536,400	7,163,400	228.0	8,228.5
10	9.50	5,914,500	6,803,400	187.5	
11	9.08	6,998,000	7,334,400	211.5	
12	8.50	6,701,800	7,243,400	190.0	
13	20.03	7,088,900	7,293,600	279.0	
14	12.17	6,967,600	7,395,200	236.8	
15	9.78	6,599,900	7,435,600	202.8	
16	29.97	6,578,600	7,476,200	219.0	
17	81.22	6,303,200	6,479,400	339.8	
18	13.30	7,333,800	7,723,200	279.8	
19	13.42	6,936,700	7,751,800	233.5	
20	11.28	6,706,300	7,258,400	229.8	
21	8.88	6,809,400	7,289,200	196.5	
22	6.27	6,602,500	6,517,100	214.8	
23	21.32	8,050,600	8,311,900	241.5	
24	10.95	6,241,500	6,527,600	201.0	
25	10.31	7,171,100	7,790,200	218.5	
26	155.70	7,804,200	8,090,600	887.1	
27	77.57	7,422,300	7,867,800	370.3	
28		7,385,600	7,819,600	391.0	
29	58.13	7,081,200	7,631,400	352.5	
30	41.28	6,629,200	7,228,000	300.0	
31					

# Waste Water Reporting Sheet

City of Binghamton Water Filtration Plant

May-11

Day	Raw Turb Avg.	Raw Flow	Filtered Flow	Pc H180 Gals	Monthly Totals
1	24.07	6,859,300	7,241,800	274.3	
2	16.71	7,135,900	7,144,600	303.0	Raw Turb Monthly Avg.
3	17.75	7,049,000	7,522,800	269.8	26.25
4	48.50	7,098,100	7,211,200	304.3	Filtered Water Total
5	21.83	7,150,900	7,090,800	248.5	222,594,000
6	16.77	7,381,200	7,042,000	264.0	Raw Water Total
7	13.69	6,438,200	6,610,000	212.0	220,475,700
8	10.49	6,680,800	6,660,800	212.3	Pc H180 Total
9	9.01	7,335,100	7,480,600	223.5	8,080.6
10	8.57	7,216,600	7,084,600	204.0	
11	7.68	7,818,300	7,720,400	215.0	
12	6.61	7,456,200	7,775,600	186.5	
13	14.91	7,078,800	6,759,600	182.0	
14	7.60	7,089,300	7,254,800	198.5	
15	6.49	7,237,900	7,050,400	258.8	
16	6.38	7,089,000	7,211,600	241.5	
17	6.03	7,418,100	7,325,800	246.0	
18	12.32	7,471,400	7,412,600	253.8	
19	55.85	7,257,500	7,426,800	318.5	
20	70.94	7,086,400	7,290,800	308.8	
21	39.66	6,669,500	6,557,000	280.8	
22	73.66	6,948,300	7,142,000	311.8	
23	19.17	6,831,700	7,172,200	257.8	
24	12.16	6,802,100	7,121,600	232.0	
25	8.28	7,548,600	7,234,000	262.8	
26	11.13	6,609,600	6,970,400	328.5	
27	28.24	6,876,900	7,362,400	255.3	
28	50.62	6,871,300	6,943,200	277.0	
29	6.55	7,020,800	7,063,600	252.0	
30	139.94	7,257,700	7,189,200	368.0	
31	42.25	7,691,200	7,520,800	330.0	

# Waste Water Reporting Sheet

City of Binghamton Water Filtration Plant

Jun-11

Day	Raw Turb Avg.	Raw Flow	Filtered Flow	Pc H180 Gals	Monthly Totals
1	11.86	7,102,300	7,271,800	264.0	
2	14.05	7,092,400	7,160,800	248.8	Raw Turb Monthly Avg.
3	7.66	7,736,200	7,577,400	287.3	13.85
4	9.23	6,007,500	6,250,800	248.5	Filtered Water Total
5	6.41	7,225,000	7,180,400	286.0	218,099,400
6	5.47	6,979,500	7,090,200	299.0	Raw Water Total
7	7.79	7,617,000	7,682,600	253.5	214,752,300
8	7.49	8,115,300	8,180,000	328.8	Pc H180 Total
9	11.02	9,915,000	10,119,400	425.0	8,696.9
10	10.55	7,150,200	6,995,400	325.0	
11	9.30	6,608,200	6,986,800	261.8	
12	33.65	6,552,600	6,478,400	293.2	
13	14.66	6,948,300	7,104,000	288.5	
14	8.31	6,686,200	6,654,400	238.0	
15	7.64	7,149,100	7,458,600	257.0	
16	5.87	7,771,000	7,729,600	306.3	
17	5.09	7,295,900	7,564,200	289.0	
18	5.40	7,047,900	7,323,600	273.5	
19	5.15	6,009,800	6,332,000	257.0	
20	4.27	7,269,800	7,415,200	327.5	
21	3.89	7,747,800	7,448,400	346.0	
22	3.19	7,312,500	7,283,200	319.0	
23	4.42	7,053,400	7,321,400	298.3	
24	46.93	7,227,200	7,315,400	321.0	
25	85.64	6,799,100	6,938,200	264.3	
26	27.18	5,952,900	6,316,400	261.8	
27	21.47	6,944,300	7,092,400	280.3	
28	14.76	7,366,200	7,207,200	289.5	
29	8.22	7,523,100	7,617,600	295.0	
30	8.95	6,546,600	7,003,600	264.0	
31					

# Waste Water Reporting Sheet

City of Binghamton Water Filtration Plant

Jul-11

Day	Raw Turb Avg.	Raw Flow	Filtered Flow	Pc H180 Gals	Monthly Totals
1	4.92	7,368,200	7,330,000	297.3	
2	3.41	6,842,100	7,182,200	276.0	Raw Turb Monthly Avg.
3	2.44	6,034,600	6,159,800	249.8	2.11
4	2.52	6,755,300	6,974,200	282.8	Filtered Water Total
5	4.21	7,135,300	7,170,200	284.5	232,488,800
6	3.74	7,072,500	7,412,800	240.0	Raw Water Total
7	3.06	7,847,400	7,849,200	300.3	228,034,200
8	2.65	6,894,900	7,311,800	263.2	Pc H180 Total
9	2.25	6,833,900	7,172,800	245.8	10,452.4
10	2.15	6,952,800	6,833,400	287.5	
11	1.70	7,473,500	7,473,600	299.8	
12	1.74	7,552,000	8,078,800	325.3	
13	1.93	7,549,000	8,022,400	282.8	
14	1.71	7,729,300	7,445,600	334.0	
15	1.80	7,360,100	7,684,800	334.0	
16	1.87	7,459,300	7,677,000	366.5	
17	1.83	7,448,000	7,431,400	406.3	
18	1.59	7,350,700	7,187,600	395.8	
19	2.07	7,615,900	7,756,800	386.0	
20	1.25	7,675,800	7,678,800	395.3	
21	1.32	8,420,800	9,033,200	431.8	
22	1.26	8,525,000	8,810,000	437.5	
23	1.32	8,542,400	8,190,000	452.0	
24	1.14	6,633,100	6,862,800	340.0	
25	1.32	7,903,000	8,279,600	400.8	
26	1.44	7,690,600	7,469,600	381.5	
27	1.13	7,415,100	7,493,200	366.8	
28	1.51	7,061,200	7,561,600	350.3	
29	1.61	7,117,000	7,406,000	366.5	
30	2.56	7,751,800	7,355,600	362.5	
31	2.02	6,023,600	6,194,000	310.3	



# Waste Water Reporting Sheet

City of Binghamton Water Filtration Plant

Aug-11

Turbidity modification (Average X 3.33) = Real

24.80

Day	Raw Turb Avg.	Raw Flow	Filtered Flow	Pc H180 Gals	Monthly Totals
1	1.40	7,624,800.00	7,865,600.00	384.8	
2	1.28	8,041,600.00	7,941,200.00	414.3	Raw Turb Monthly Avg.
3	1.32	7,067,600.00	7,338,800.00	375.5	7.45
4	2.27	7,308,800.00	7,622,800.00	335.3	Filtered Water Total
5	1.76	7,055,000.00	6,992,400.00	331.5	217,803,600
6	1.50	7,152,600.00	7,045,600.00	332.5	Raw Water Total
7	7.94	6,788,800.00	6,613,200.00	363.0	217,014,000
8	12.16	6,911,400.00	7,164,800.00	361.0	Pc H180 Total
9	3.98	7,333,200.00	7,291,200.00	338.2	11,327.0
10	6.12	6,728,200.00	7,117,200.00	336.5	
11	2.85	7,095,600.00	7,006,800.00	313.5	
12	2.24	6,401,200.00	6,760,800.00	309.0	
13	1.86	6,875,000.00	6,910,400.00	383.9	
14	1.85	6,669,000.00	6,518,400.00	315.8	
15	1.56	6,192,400.00	6,607,600.00	306.0	
16	1.49	6,858,400.00	6,828,800.00	327.8	
17	1.67	7,182,800.00	6,918,400.00	422.2	
18	2.13	6,921,200.00	7,131,600.00	423.8	
19	12.34	6,822,000.00	7,072,000.00	377.5	
20	2.89	7,084,800.00	6,826,000.00	451.5	
21	2.10	6,463,200.00	6,344,800.00	309.0	
22	2.28	7,402,000.00	6,832,800.00	365.5	
23	1.56	7,045,000.00	7,394,400.00	338.0	
24	1.86	7,039,200.00	6,890,800.00	356.3	
25	3.26	7,056,600.00	7,208,800.00	354.5	
26	2.72	7,314,000.00	7,309,200.00	349.0	
27	2.25	6,867,600.00	6,516,000.00	336.0	
28	80.53	7,008,400.00	7,230,000.00	460.3	
29	36.53	6,689,800.00	6,401,600.00	464.8	
30	13.93	7,036,600.00	7,144,400.00	367.5	
31	13.24	6,977,200.00	6,957,200.00	422.8	



# Waste Water Reporting Sheet

City of Binghamton Water Filtration Plant  
Sep-11

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	12.98	6,802,000	586,738	6,834,400	424.5	
2	7.51	6,084,800	412,523	6,596,400	337.0	Raw Turb Monthly Avg.
3	4.94	6,610,400	669,800	6,712,800	332.8	16.79
4	14.47	6,978,800	604,202	6,986,800	350.8	Filtered Water Total
5	11.13	6,443,600	333,165	6,652,400	370.3	204,740,000
6	10.59	7,257,600	674,217	7,528,800	412.0	Raw Water Total
7	94.58	6,246,200	210,033	6,860,400	416.0	191,897,800
8	90.23	7,054,400	479,822	7,106,800	482.0	Pc H180 Total
9	45.60	6,983,400	103	7,834,800	415.5	9,678.0
10	26.64	6,155,800	35,364	6,729,200	346.8	Waste Flow Total
11	14.49	5,392,200	0	6,674,400	310.5	11,262,791
12	8.53	6,019,200	574	6,894,800	308.0	
13	6.66	6,410,000	349,763	6,818,000	278.3	
14	5.69	6,982,600	953,330	6,940,800	348.8	
15	6.30	6,589,000	79,435	7,322,400	324.8	
16	6.33	5,752,000	285,456	6,368,800	285.8	
17	4.98	6,254,800	569,586	6,648,000	312.2	
18	3.59	6,216,800	91	6,682,800	289.5	
19	3.55	6,335,600	320,527	6,714,400	205.0	
20	3.91	6,132,000	364,596	6,560,800	252.0	
21	5.34	5,690,800	364,326	6,128,000	231.5	
22	5.34	6,483,800	501,628	7,004,400	250.5	
23	6.45	6,481,800	265,644	7,201,600	233.3	
24	6.11	6,113,200	427,075	6,527,600	246.0	
25	4.19	6,387,800	360,279	6,794,800	241.3	
26	3.04	6,089,400	336,908	6,461,200	241.3	
27	11.90	7,378,000	674,326	7,459,600	307.5	
28	33.33	5,875,800	478,579	6,094,800	406.2	
29	29.36	6,541,400	245,240	6,993,600	420.8	
30	15.92	6,154,600	679,461	6,606,400	297.2	
31						

New "Waste Water, Waste Flow total is from the calibrated mag meter installed on the 8" Discharge line from our plant. This line calculates all flow heading to your facility as of 9/28/11 it has been certified accurate by a representative from Khrono manufacturing.

**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Oct-11

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	19.37	7,176,200	722,875	6,765,200	303.8	
2	29.15	5,701,600	456,573	6,031,200	247.5	Raw Turb Monthly Avg.
3	14.19	6,184,000	645,494	6,294,000	266.8	9.84
4	10.94	7,256,800	519,256	7,484,800	311.3	Filtered Water Total
5	10.75	7,013,200	698,680	6,994,400	279.5	207,939,200
6	9.17	6,020,000	508,284	6,327,600	234.3	Raw Water Total
7	9.01	6,468,400	480,739	7,043,600	250.3	202,853,000
8	8.34	6,198,400	496,417	6,382,400	231.5	Pc H180 Total
9	5.83	6,739,200	484,055	6,984,800	208.8	7,988.0
10	5.70	6,830,800	527,711	6,675,600	240.3	Waste Flow Total
11	6.41	6,596,800	384,311	7,115,600	246.0	16,796,453
12	5.15	6,544,400	410,243	6,878,800	246.0	
13	5.25	6,296,000	481,854	6,748,800	212.2	
14	32.58	6,923,600	667,493	7,009,200	336.5	
15	14.94	6,327,000	532,168	6,612,800	274.5	
16	6.56	7,162,200	603,247	6,920,800	288.8	
17	7.59	5,999,600	564,575	6,185,600	244.0	
18	5.25	6,930,000	458,286	7,223,600	263.8	
19	5.25	6,637,600	715,268	6,730,800	261.8	
20	27.71	6,260,800	417,149	6,483,600	305.8	
21	6.96	6,144,400	164,123	5,819,200	248.5	
22	8.45	6,218,800	632,761	6,312,400	236.8	
23	6.11	6,332,400	809,855	6,083,200	259.3	
24	5.03	6,798,800	448,103	7,081,200	288.0	
25	4.93	6,617,600	793,071	6,927,600	286.3	
26	3.76	6,124,800	676,067	6,435,200	223.0	
27	7.76	7,031,200	605,339	7,034,000	267.5	
28	6.49	6,536,600	326,065	7,052,400	255.0	
29	5.31	6,649,000	488,388	6,697,200	221.0	
30	6.09	6,388,400	343,849	6,768,800	215.5	
31	5.03	6,744,400	734,154	6,834,800	234.0	

New "Waste Water, Waste Flow total is from the calibrated mag meter installed on the 8" Discharge line from our plant. This line calculates all flow heading to your facility as of 9/28/11 it has been certified accurate by a representative from Khrono manufacturing.

**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Nov-11

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	4.20	6,741,200	617,095	6,622,800	233.3	
2	2.85	6,712,400	303,837	7,198,800	211.8	Raw Turb Monthly Avg.
3	2.78	5,904,800	441,646	6,326,000	171.0	13.90
4	3.45	6,776,400	577,149	7,133,200	157.0	Filtered Water Total
5	3.33	6,621,600	390,856	6,949,600	195.3	206,442,000
6	2.92	6,516,800	398,542	6,544,000	186.0	Raw Water Total
7	3.09	7,068,600	512,624	7,373,600	194.3	197,570,200
8	1.57	5,557,400	310,544	6,096,400	152.0	Pc H180 Total
9	2.34	6,700,200	121,650	6,918,000	177.8	6,103.0
10	2.31	6,991,400	568,306	7,078,400	177.5	Waste Flow Total
11	4.25	7,052,000	513,672	7,374,800	198.0	14,261,873
12	2.57	6,195,200	279,965	6,535,600	165.0	
13	1.50	6,204,800	547,461	6,344,800	168.0	
14	2.25	7,694,800	951,330	7,990,000	202.8	
15	3.97	6,494,000	887,929	6,644,400	188.5	
16	3.55	6,154,400	490,414	6,415,200	168.8	
17	4.05	6,330,600	285,537	6,884,400	182.0	
18	2.52	7,223,200	492,754	7,590,000	198.3	
19	1.69	6,544,800	536,840	6,808,800	182.5	
20	2.42	6,036,000	233,899	6,872,400	166.0	
21	1.95	7,132,000	599,276	7,372,400	197.5	
22	3.28	6,970,800	316,142	7,154,000	206.3	
23	75.97	6,367,600	393,265	6,917,200	352.5	
24	20.41	6,459,400	624,518	6,514,800	245.8	
25	13.68	6,582,200	575,382	6,923,600	235.0	
26	8.15	6,394,000	576,341	6,574,000	223.3	
27	5.31	5,973,600	425,815	6,224,800	195.0	
28	4.57	7,371,000	387,286	7,593,200	231.0	
29	59.67	6,648,200	489,068	6,945,600	267.0	
30	166.40	6,150,800	412,730	6,521,200	274.0	
31						

# Waste Water Reporting Sheet

City of Binghamton Water Filtration Plant

Dec-11

Raw Turb entered by hand due to Meter failure Dec. 1-5 only

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	18.10	6,953,200	426,247	7,279,400	244.3	
2	14.50	6,172,400	452,314	6,758,000	210.0	Raw Turb Monthly Avg.
3	12.00	6,360,800	284,734	6,601,200	206.0	25.13
4	8.50	7,013,600	575,352	7,022,000	199.5	Filtered Water Total
5	6.70	7,774,000	614,335	7,329,600	233.0	214,063,800
6	5.15	6,758,400	1,070,161	6,565,600	200.0	Raw Water Total
7	42.21	7,068,200	904,445	7,205,600	260.5	208,670,000
8	30.27	6,503,400	460,434	6,853,200	292.2	Pc H180 Total
9	14.45	7,434,800	236,904	6,943,400	265.8	7,437.3
10	11.89	5,777,600	607,884	6,337,900	204.5	Waste Flow Total
11	7.23	6,970,200	455,320	6,894,500	220.8	16,178,825
12	7.45	5,928,200	767,302	6,331,800	183.8	
13	6.07	7,070,800	793,989	7,303,500	223.5	
14	7.44	6,995,000	787,079	7,061,100	215.8	
15	24.74	6,802,600	455,129	7,115,300	264.8	
16	19.45	7,407,600	505,419	6,775,300	295.8	
17	7.62	6,597,200	553,368	6,764,400	226.0	
18	6.48	6,529,200	287,478	6,819,300	208.8	
19	5.33	6,436,200	346,666	6,823,200	200.5	
20	24.78	6,508,200	461,639	6,754,000	189.3	
21	112.06	6,652,400	322,461	7,155,400	267.0	
22	59.83	7,096,000	611,399	7,275,800	336.2	
23	136.59	7,118,800	649,024	7,003,600	349.0	
24	37.72	6,446,400	260,593	6,906,800	258.0	
25	26.74	7,016,800	598,389	6,932,600	282.0	
26	18.81	5,786,400	626,178	5,871,400	211.0	
27	31.54	6,937,400	320,572	7,548,800	321.8	
28	28.72	6,930,200	212,283	7,226,500	267.3	
29	15.56	6,730,000	805,020	6,785,800	232.8	
30	16.97	6,577,600	443,756	6,833,200	167.5	
31	14.13	6,316,400	282,951	6,985,600	200.3	

# 2012 Flow Review

Raw Water	Finished Water	Waste Water	PCH	Turbidity	Month
201,517,800	213,415,100	11,110,412	7,247.4	29.81	Jan
191,198,600	197,396,900	11,574,046	5,666.5	10.61	Feb
198,240,400	202,713,200	11,313,200	6,905.7	21.03	Mar
192,767,600	194,013,300	14,069,934	6,471.1	12.38	Apr
214,834,400	207,802,600	13,675,243	7,715.1	28.84	May
208,945,200	197,726,300	12,734,526	7,761.6	12.19	Jun
218,521,800	205,832,900	12,787,006	8,797.8	11.03	Jul
209,538,700	194,157,300	14,920,062	8,535.6	13.43	Aug
203,707,400	180,459,700	17,893,107	7,785.9	15.61	Sep
204,104,100	181,724,700	16,652,584	5,999.2	11.94	Oct
194,381,000	176,430,200	15,092,066	5,417.4	5.76	Nov
207,022,000	189,453,100	16,367,232	6,656.4	24.56	Dec
2,444,779,000	2,341,125,300	168,189,418	84,959.7	16.43	
Gallons	Gallons	Gallons	Gallons	AVG NTU	



# Waste Water Reporting Sheet

City of Binghamton Water Filtration Plant

Jan-12

Raw Turb entered by hand due to Meter failure Dec. 1-5 only

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	11.72	7,173,600	520,102	7,092,200	227	
2	11.44	5,798,000	691,751	5,973,100	182	Raw Turb Monthly Avg.
3	9.22	6,846,400	124,943	7,142,500	207	29.81
4	6.85	6,374,800	549,688	6,546,000	191	Filtered Water Total
5	6.28	6,844,800	372,483	7,247,700	186	213,415,100
6	5.87	6,649,200	498,467	6,793,300	182	Raw Water Total
7	7.00	6,076,000	414,610	6,644,400	172	201,517,800
8	5.69	5,841,200	308,418	6,253,800	168	Pc H180 Total
9	5.13	6,164,400	130,788	6,876,400	176	7,247.4
10	7.07	6,810,400	553,992	6,968,600	192	Waste Flow Total
11	6.62	6,472,800	576,981	6,708,100	176	11,110,412
12	49.66	5,858,000	159,483	6,580,000	253	
13	83.55	6,645,000	576,548	6,771,500	315	
14	16.64	5,803,800	226,749	6,769,900	219	
15	10.92	6,170,000	256,095	6,539,300	196	
16	9.50	6,722,400	412,602	7,164,700	199	
17	23.53	5,824,800	143,423	6,544,000	207	
18	23.35	7,393,000	112,952	7,601,800	308	
19	8.11	6,262,200	693,290	6,145,200	223	
20	9.36	6,009,600	472,846	6,436,900	200	
21	8.67	7,081,200	108,132	7,572,800	226	
22	24.08	7,151,000	235,791	7,411,400	253	
23	22.69	6,419,400	581,453	6,736,200	236	
24	29.80	6,466,400	49,871	7,129,400	271	
25	9.45	6,641,600	100,574	7,036,600	234	
26	13.61	6,804,800	602,680	6,956,400	236	
27	257.97	6,076,000	242,409	6,672,100	362	
28	83.78	6,949,600	439,689	7,265,200	328	
29	80.62	6,731,000	285,666	7,719,700	363	
30	45.81	6,540,400	436,016	6,874,800	302	
31	30.15	6,916,000	231,920	7,241,100	262	



**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Feb-12

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	25.11	5,822,600	96,974	6,435,500	215.0	Raw Turb Monthly Avg.
2	16.47	7,000,600	662,333	6,963,800	255.0	
3	18.17	6,192,600	153,000	6,848,900	212.0	
4	12.86	6,792,000	548,846	6,913,500	230.5	10.61
5	10.81	6,674,800	189,856	7,183,100	219.0	Filtered Water Total
6	9.98	6,668,400	322,567	7,171,700	196.8	197,396,900
7	8.54	7,015,400	641,370	6,912,800	205.0	Raw Water Total
8	7.81	6,241,200	193,120	6,734,100	180.5	191,198,600
9	15.27	6,031,200	332,806	6,472,400	179.3	Pc H180 Total
10	8.27	6,761,400	347,077	7,224,600	196.3	5,666.5
11	6.61	7,282,400	652,654	7,140,700	214.5	Waste Flow Total
12	10.25	5,792,000	235,873	6,521,100	177.3	11,574,046
13	8.59	7,440,400	508,541	7,674,200	218.5	
14	7.64	6,654,000	419,484	6,804,300	189.2	
15	10.15	6,615,200	236,291	6,908,400	206.5	
16	9.75	5,698,400	654,050	5,987,200	158.8	
17	7.36	6,706,600	645,285	6,871,200	167.8	
18	7.34	6,322,600	368,803	6,452,000	176.2	
19	4.35	6,658,800	249,987	6,869,300	174.2	
20	5.13	5,998,800	654,229	6,142,400	159.5	
21	9.81	6,590,800	214,697	6,652,800	180.8	
22	8.42	7,416,800	675,384	7,207,200	192.0	
23	5.41	5,696,000	390,839	6,037,700	146.8	
24	20.15	7,334,800	570,153	7,221,000	231.3	
25	24.93	6,209,200	708,762	5,871,400	198.0	
26	8.59	6,878,800	198,177	7,220,900	206.8	
27	8.10	6,499,200	294,024	6,819,400	183.8	
28	5.74	6,967,600	65,230	6,902,500	198.0	
29	6.09	7,236,000	343,634	7,232,800	197.5	
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**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Mar-12

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	22.48	5,864,400	204,617	6,208,500	216.5	
2	32.24	7,158,000	361,391	7,249,900	272.3	Raw Turb Monthly Avg.
3	85.58	6,529,600	425,635	6,632,600	268.8	21.03
4	22.04	6,769,200	606,972	6,232,500	247.0	Filtered Water Total
5	18.07	6,867,000	376,545	6,994,400	242.8	202,713,200
6	14.02	6,091,000	297,677	6,278,000	204.0	Raw Water Total
7	11.49	7,044,800	143,728	7,158,700	235.0	198,240,400
8	19.98	6,677,200	809,859	6,349,600	238.0	Pc H180 Total
9	99.08	5,507,000	62,770	6,342,800	302.3	6,905.7
10	55.50	6,551,800	561,438	6,838,500	289.8	Waste Flow Total
11	41.01	6,147,600	232,966	6,164,500	268.8	11,313,200
12	25.43	5,954,000	120,518	6,550,100	251.3	
13	18.82	6,729,200	356,497	6,913,700	250.3	
14	15.54	7,183,600	855,652	6,849,500	259.8	
15	18.05	5,700,400	128,341	6,200,000	178.5	
16	13.54	6,385,200	289,086	6,773,900	213.0	
17	11.19	6,607,600	486,844	6,724,500	201.5	
18	10.41	6,088,400	172,203	6,153,000	180.2	
19	9.61	6,904,400	610,770	6,870,500	198.3	
20	9.67	6,139,400	210,422	6,374,800	172.0	
21	11.15	7,342,000	387,346	7,241,200	195.8	
22	12.29	5,917,800	762,278	5,868,000	154.8	
23	12.12	6,328,600	155,534	6,729,300	186.0	
24	9.91	6,557,200	443,644	6,418,600	224.8	
25	8.30	5,928,600	440,881	5,939,200	194.8	
26	9.55	5,968,400	166,708	6,438,200	202.0	
27	8.14	6,429,800	489,237	6,553,200	219.0	
28	10.81	6,456,400	340,256	6,561,700	228.8	
29	5.84	6,473,800	239,450	6,660,000	231.5	
30	4.67	5,675,200	318,159	5,892,000	184.5	
31	5.31	6,262,800	255,776	6,551,800	194.0	

**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Apr-12

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	9.65	6,112,000	527,386	6,154,800	201.2	
2	8.97	6,010,000	257,443	6,529,000	218.3	Raw Turb Monthly Avg.
3	4.61	6,904,800	343,645	6,945,400	224.0	12.38
4	5.51	5,889,600	430,178	5,882,400	180.3	Filtered Water Total
5	4.66	6,064,600	526,315	6,806,200	177.8	194,013,300
6	5.00	6,383,800	480,956	6,011,500	192.5	Raw Water Total
7	5.67	5,777,000	136,951	6,015,900	171.5	192,767,600
8	5.92	5,832,600	296,095	5,970,700	170.0	Pc H180 Total
9	8.00	5,876,800	279,657	6,354,600	169.3	6,471.1
10	11.51	6,026,400	88,718	6,391,600	186.5	Waste Flow Total
11	4.62	6,665,600	949,471	6,750,800	194.5	14,069,934
12	3.80	6,210,800	558,250	6,394,700	197.5	
13	5.25	6,242,800	780,621	6,426,900	201.0	
14	4.48	6,549,200	296,119	6,799,700	210.5	
15	5.21	6,116,800	281,990	6,229,100	202.5	
16	7.59	7,960,800	697,290	7,250,900	246.0	
17	5.95	5,934,800	578,835	6,041,900	203.8	
18	4.55	7,089,600	545,508	7,047,500	253.5	
19	4.71	5,727,600	355,347	6,108,000	206.8	
20	7.22	8,286,400	969,431	7,086,100	297.0	
21	5.73	5,533,600	460,631	5,567,100	234.8	
22	6.02	6,387,600	374,168	6,437,000	247.0	
23	128.10	7,350,800	914,565	7,121,000	358.3	
24	37.70	5,562,000	251,479	6,087,700	230.0	
25	21.67	7,122,400	158,507	7,304,900	275.8	
26	13.94	6,940,800	511,109	6,658,300	239.2	
27	11.54	5,867,600	662,565	5,720,300	182.0	
28	7.55	6,327,200	468,116	6,397,700	179.3	
29	8.47	6,047,600	339,086	6,441,800	181.5	
30	7.67	7,966,000	549,502	7,079,800	239.0	
31						

**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
**May-12**

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	7.22	6,850,000	1,220,024	6,375,000	200.3	Raw Turb Monthly Avg. <b>28.84</b>
2	8.57	6,768,000	442,608	6,961,700	188.8	
3	11.26	6,630,400	181,912	6,797,300	184.3	
4	83.35	7,353,600	623,218	7,071,500	301.8	Filtered Water Total <b>207,802,600</b>
5	37.42	6,542,400	595,254	6,259,600	252.0	Raw Water Total <b>214,834,400</b>
6	19.39	7,386,000	506,703	6,843,400	277.3	Pc H180 Total <b>7,715.1</b>
7	13.59	6,673,200	152,125	6,779,000	210.0	Waste Flow Total <b>13,675,243</b>
8	25.31	6,123,200	607,516	5,931,800	228.5	
9	28.92	7,123,200	388,614	6,856,600	273.8	
10	35.12	7,207,600	582,103	6,826,100	276.0	
11	31.20	6,415,600	381,882	6,487,000	243.5	
12	21.90	6,581,600	358,474	6,464,500	237.0	
13	19.45	6,578,800	339,398	6,429,200	222.8	
14	18.61	6,890,800	526,162	6,684,900	239.5	
15	149.00	6,778,000	112,459	7,015,100	381.5	
16	66.53	7,293,600	361,651	7,010,500	324.5	
17	43.90	6,564,400	306,609	6,442,000	254.5	
18	35.47	7,466,000	272,205	6,834,800	271.3	
19	25.82	7,023,600	532,646	6,564,700	246.0	
20	21.05	6,530,000	397,546	6,472,100	211.3	
21	20.52	6,593,200	303,471	6,898,400	205.3	
22	20.24	6,966,800	387,574	6,860,900	216.3	
23	14.60	7,198,000	534,896	6,980,300	218.5	
24	14.95	7,587,600	419,205	7,161,700	236.0	
25	15.92	6,265,200	127,465	6,314,200	202.0	
26	14.43	7,610,800	572,986	7,214,400	244.0	
27	15.35	6,655,600	270,223	6,355,200	243.0	
28	15.74	7,298,800	297,368	6,723,400	270.5	
29	17.10	7,409,200	640,081	6,773,100	287.3	
30	19.84	7,487,600	861,085	6,769,900	297.0	
31	22.22	6,981,600	371,780	6,644,300	271.0	

**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Jun-12

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	20.37	6,894,000	309,972	6,586,900	283.5	
2	24.56	6,278,800	360,565	6,061,900	245.0	Raw Turb Monthly Avg.
3	17.99	7,308,800	563,017	6,722,200	294.0	12.19
4	20.48	5,714,800	120,609	6,041,200	239.8	Filtered Water Total
5	18.09	6,626,000	426,856	6,158,900	241.8	197,726,300
6	16.40	7,704,000	710,084	7,040,900	263.8	Raw Water Total
7	11.99	6,719,200	403,185	6,155,400	224.5	208,945,200
8	13.12	6,288,800	466,057	5,981,800	209.0	Pc H180 Total
9	12.16	6,812,000	572,243	6,158,000	228.8	7,761.6
10	11.86	6,309,600	400,500	6,091,400	216.0	Waste Flow Total
11	16.48	7,876,000	235,870	7,637,300	276.8	12,734,526
12	13.19	6,802,800	634,119	6,268,700	244.0	
13	10.95	6,673,200	393,858	6,366,500	229.0	
14	11.08	7,042,000	173,814	6,985,200	240.8	
15	11.88	6,901,200	638,600	6,480,600	257.8	
16	10.89	6,636,400	395,534	6,288,800	254.8	
17	11.18	6,684,000	196,645	6,371,700	244.0	
18	9.96	6,803,600	635,085	6,297,300	245.0	
19	9.20	6,783,200	177,167	6,700,800	216.5	
20	9.01	7,106,800	334,958	6,772,700	251.2	
21	9.13	8,339,600	545,230	7,720,400	302.5	
22	9.07	6,906,800	193,920	6,847,100	231.8	
23	8.74	7,441,200	680,000	6,633,900	270.8	
24	8.92	6,960,400	376,100	6,486,800	250.5	
25	9.25	6,408,400	228,363	6,107,700	239.8	
26	7.28	7,411,600	893,556	6,635,300	283.0	
27	7.84	6,590,000	179,195	6,518,600	269.5	
28	7.84	7,265,200	408,946	6,805,400	320.0	
29	8.51	7,422,000	397,114	7,338,000	319.8	
30	8.17	8,234,800	683,364	7,464,900	368.0	
31						



**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Jul-12

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	6.75	6,331,200	187,090	6,575,500	279.5	
2	6.58	7,035,200	269,276	6,772,600	354.8	Raw Turb Monthly Avg.
3	8.35	8,301,200	558,075	7,644,800	397.0	11.03
4	6.53	7,094,400	381,865	6,710,700	302.2	Filtered Water Total
5	6.12	7,139,200	420,562	6,539,600	275.0	205,832,900
6	7.55	7,032,800	526,607	6,979,900	274.5	Raw Water Total
7	7.84	7,453,200	414,464	7,079,000	270.8	218,521,800
8	9.82	6,416,800	170,374	5,950,300	235.8	Pc H180 Total
9	8.46	7,195,200	559,424	6,746,200	287.2	8,797.8
10	7.79	6,879,200	634,519	6,333,100	258.8	Waste Flow Total
11	7.15	7,196,300	133,983	7,203,800	249.0	12,787,006
12	6.92	7,553,200	312,431	7,251,200	317.3	
13	8.57	8,194,400	471,721	7,617,100	312.3	
14	7.20	7,102,600	281,350	6,953,000	265.3	
15	8.22	7,352,900	312,063	6,715,400	278.5	
16	8.91	7,178,500	506,240	6,696,900	269.8	
17	7.09	6,817,500	505,730	6,172,500	266.8	
18	7.25	7,391,700	385,994	7,032,500	289.2	
19	6.85	7,337,600	564,500	6,983,300	293.0	
20	7.72	7,026,100	355,223	6,480,800	252.0	
21	8.12	6,610,000	515,177	6,116,000	229.8	
22	8.12	6,571,600	444,600	5,761,600	242.2	
23	8.58	6,960,400	610,208	6,399,300	265.5	
24	24.42	6,921,800	460,427	6,484,700	304.3	
25	10.10	7,041,600	137,776	6,911,000	285.5	
26	23.83	7,293,300	559,069	6,622,500	327.5	
27	60.44	6,209,200	347,360	5,998,600	277.3	
28	16.65	6,718,200	512,551	6,293,400	264.0	
29	8.79	6,470,400	444,648	5,771,300	273.8	
30	11.01	6,513,000	370,042	6,301,100	292.5	
31	10.28	7,183,100	433,657	6,735,200	307.0	



**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Aug-12

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	72.38	7,558,200	552,762	6,875,300	365.0	Raw Turb Monthly Avg. <b>13.42</b>
2	9.47	6,899,500	461,228	6,469,600	297.5	
3	9.14	6,956,200	391,272	6,521,600	279.5	
4	8.57	6,945,600	578,250	6,422,600	261.0	Filtered Water Total <b>194,157,300</b>
5	8.90	6,621,000	295,450	6,005,200	251.8	Raw Water Total <b>209,538,700</b>
6	8.85	7,414,100	904,843	6,735,600	292.3	Pc H180 Total <b>8,535.6</b>
7	9.65	7,100,700	671,444	6,302,500	286.5	Waste Flow Total <b>14,920,062</b>
8	8.01	7,431,700	238,309	7,052,200	340.3	
9	8.06	7,228,500	714,083	6,280,400	345.0	
10	18.35	6,444,200	331,893	6,237,900	260.3	
11	12.32	6,726,800	523,719	6,135,100	259.3	
12	7.95	6,613,800	634,017	5,816,800	290.5	
13	6.87	6,383,900	135,032	6,187,300	287.3	
14	7.20	7,003,400	527,555	6,522,400	337.5	
15	27.06	6,677,400	445,906	6,571,900	319.2	
16	16.99	6,849,400	150,999	6,699,500	316.2	
17	10.26	6,067,800	482,355	5,474,400	227.0	
18	9.03	6,591,600	457,445	6,076,100	233.8	
19	7.95	6,702,700	706,650	6,153,300	243.8	
20	8.80	6,400,600	673,675	5,706,500	234.5	
21	9.48	7,231,100	644,402	6,529,500	273.8	
22	10.34	6,255,900	168,273	6,071,200	224.8	
23	8.79	7,228,200	534,695	6,513,900	273.3	
24	8.91	6,196,300	246,225	6,086,400	230.5	
25	9.35	6,860,600	721,919	6,298,800	262.3	
26	9.47	5,991,600	222,606	5,762,100	230.8	
27	10.03	6,325,000	184,348	5,977,600	247.3	
28	34.83	7,204,900	909,206	6,446,000	303.0	
29	17.32	6,823,600	344,601	6,444,600	266.5	
30	10.09	6,704,900	371,252	6,347,200	258.0	
31	11.63	6,099,500	695,648	5,433,800	237.5	

**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
**Sep-12**

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	11.22	6,880,400	1,811,010	6,232,000	267.5	
2	13.16	6,964,000	870,415	6,042,600	293.0	Raw Turb Monthly Avg.
3	14.42	6,605,400	386,811	5,913,300	269.5	15.61
4	15.38	7,242,300	885,657	6,262,300	271.8	Filtered Water Total
5	14.76	6,227,500	460,968	5,731,000	247.3	180,459,700
6	14.57	7,221,400	529,643	6,505,900	280.3	Raw Water Total
7	12.71	6,650,100	343,697	6,294,800	230.0	203,707,400
8	22.84	6,772,000	757,161	6,121,600	259.5	Pc H180 Total
9	36.99	6,622,900	199,382	5,722,500	291.3	7,785.9
10	12.56	6,508,800	452,682	6,119,000	265.0	Waste Flow Total
11	9.76	6,582,400	393,663	5,766,700	257.5	17,893,107
12	9.92	6,823,000	202,935	6,139,700	269.5	
13	10.21	6,911,600	835,591	5,927,700	280.0	
14	11.80	7,208,200	938,374	6,120,900	267.8	
15	10.15	6,289,500	328,771	5,754,000	234.5	
16	10.23	6,446,100	442,146	5,268,200	246.0	
17	11.14	6,713,300	487,040	5,941,700	262.5	
18	13.58	7,329,700	939,386	6,228,100	289.0	
19	16.43	7,345,900	795,665	6,116,600	285.0	
20	12.51	7,095,500	594,701	6,464,200	275.8	
21	10.10	6,585,200	416,523	6,047,900	224.8	
22	13.06	6,747,700	510,711	6,016,400	220.8	
23	9.82	6,397,200	202,274	5,681,800	235.5	
24	8.17	6,525,100	611,596	5,975,600	248.3	
25	9.64	7,013,900	468,681	6,294,900	260.5	
26	10.55	7,300,900	989,978	6,084,200	282.5	
27	7.65	7,479,600	677,364	6,650,000	274.0	
28	78.50	6,785,500	654,498	6,077,700	265.5	
29	26.64	6,211,200	464,694	5,647,800	235.5	
30	9.85	6,221,100	241,090	5,310,600	196.0	
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**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Oct-12

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	8.78	6,808,600	919,423	5,826,300	203.0	
2	9.76	6,487,300	294,681	6,042,700	172.8	Raw Turb Monthly Avg.
3	8.40	7,182,500	519,250	6,397,100	192.8	11.94
4	9.48	7,379,800	856,645	6,379,700	195.8	Filtered Water Total
5	8.07	6,107,000	521,779	5,604,300	160.0	181,724,700
6	9.09	6,394,300	488,087	5,815,100	142.5	Raw Water Total
7	7.09	6,571,200	667,757	5,805,200	174.8	204,104,100
8	5.67	6,073,100	195,108	5,646,200	171.5	Pc H180 Total
9	4.66	6,771,400	673,341	5,936,200	183.8	5,999.2
10	5.05	6,667,200	241,430	6,052,800	197.0	Waste Flow Total
11	4.88	6,418,700	503,400	5,698,300	175.0	16,652,584
12	5.89	6,808,300	966,600	5,601,300	173.0	
13	3.96	6,572,400	448,705	5,968,000	152.2	
14	4.37	6,491,400	668,304	5,368,500	159.8	
15	4.43	6,910,600	524,937	6,079,300	157.5	
16	5.04	6,317,800	486,506	5,654,500	150.0	
17	3.71	6,926,700	677,799	6,102,800	169.0	
18	2.92	6,611,700	254,311	6,108,000	150.0	
19	57.56	6,200,800	218,747	5,812,200	203.8	
20	51.86	7,344,100	1,468,968	5,958,100	335.0	
21	16.43	6,185,100	260,179	5,650,600	225.8	
22	13.01	6,452,400	368,635	5,940,300	207.5	
23	19.10	6,590,900	458,458	5,918,100	224.8	
24	12.44	6,210,600	502,121	5,435,800	226.2	
25	10.04	7,292,400	693,036	6,299,400	233.5	
26	6.97	6,631,000	724,912	5,800,500	192.2	
27	6.19	6,246,900	290,863	5,608,900	155.2	
28	6.12	6,439,300	737,719	5,274,700	175.5	
29	13.52	7,550,800	527,129	7,144,400	234.3	
30	31.51	5,283,400	131,590	5,068,800	253.0	
31	14.25	6,176,400	362,164	5,726,600	252.2	

**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Nov-12

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	15.23	6,133,000	609,463	5,473,400	204.8	
2	14.42	6,294,200	686,410	5,656,000	212.8	Raw Turb Monthly Avg.
3	10.77	5,995,400	310,504	5,453,600	175.0	5.76
4	9.65	6,834,300	677,566	6,130,400	202.2	Filtered Water Total
5	6.80	6,335,900	537,572	5,940,700	196.3	176,430,200
6	4.22	6,446,200	201,215	6,311,100	196.0	Raw Water Total
7	4.16	6,965,500	641,583	5,955,000	219.8	194,381,000
8	4.61	6,314,800	478,141	5,671,200	174.0	Pc H180 Total
9	4.04	6,229,600	483,773	5,788,500	159.0	5,417.4
10	3.31	6,050,400	253,644	5,676,100	152.2	Waste Flow Total
11	3.23	6,540,300	641,046	5,779,600	161.0	15,092,066
12	3.47	6,537,100	729,540	5,648,200	156.5	
13	29.40	6,667,200	232,726	6,292,300	245.8	
14	8.77	6,278,600	419,080	5,442,000	195.8	
15	5.44	6,806,600	527,594	6,333,400	216.0	
16	4.27	6,413,700	469,325	5,863,900	188.0	
17	4.35	6,382,700	480,622	6,001,600	168.0	
18	4.16	6,050,800	478,375	5,158,400	175.0	
19	2.90	6,517,900	542,317	6,202,100	200.5	
20	2.78	6,439,400	451,516	5,909,900	184.5	
21	2.76	6,980,700	339,245	6,209,800	211.8	
22	2.77	5,924,400	635,650	5,365,600	155.5	
23	2.95	6,267,300	304,950	5,886,700	161.8	
24	3.08	6,364,900	672,650	5,377,600	159.2	
25	2.76	6,759,400	476,100	5,894,400	160.5	
26	1.66	6,714,600	501,152	6,116,100	152.8	
27	2.71	7,059,900	640,672	6,359,100	170.0	
28	2.83	6,503,100	270,466	6,164,600	151.8	
29	2.71	7,104,500	567,273	6,613,600	164.3	
30	2.55	6,468,600	831,896	5,755,300	146.8	
31						

**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Dec-12

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	2.44	6,442,400	564,863	6,013,200	153.0	
2	1.88	7,065,600	465,397	6,439,700	157.0	Raw Turb Monthly Avg.
3	3.12	6,568,300	723,575	5,791,700	150.3	24.56
4	2.61	6,808,800	305,603	6,537,800	186.7	Filtered Water Total
5	9.31	6,399,800	804,703	5,789,800	174.5	189,453,100
6	3.03	7,334,600	838,007	6,657,700	189.0	Raw Water Total
7	4.41	6,139,600	439,293	5,691,800	156.0	207,022,000
8	17.48	6,904,900	883,139	6,097,800	202.8	Pc H180 Total
9	4.74	6,125,300	359,361	5,622,200	174.5	6,656.4
10	32.51	6,837,100	605,685	6,051,700	211.5	Waste Flow Total
11	25.37	6,873,100	763,377	6,120,000	275.8	16,367,232
12	7.95	7,056,000	439,727	6,325,400	243.0	
13	7.34	6,895,900	380,791	6,472,500	187.5	
14	6.33	6,268,200	398,042	5,778,600	156.8	
15	4.69	6,695,700	577,060	6,316,700	201.8	
16	4.24	6,313,300	388,977	5,877,300	184.0	
17	4.85	6,262,700	266,786	5,887,100	202.5	
18	100.00	7,454,200	600,104	6,923,100	413.0	
19	18.60	6,977,400	398,610	6,390,500	293.2	
20	13.76	6,652,900	452,026	5,907,400	200.8	
21	280.16	6,426,300	863,265	5,729,900	318.5	
22	62.15	5,820,000	218,855	5,673,000	213.5	
23	46.19	6,360,000	548,595	5,891,600	237.8	
24	26.44	7,239,200	682,284	6,445,500	266.0	
25	15.70	6,405,100	504,620	5,668,400	209.3	
26	11.25	6,750,300	532,906	6,253,000	203.3	
27	12.68	7,348,100	405,519	6,721,800	241.3	
28	9.61	6,296,200	584,593	5,647,400	215.0	
29	8.06	6,611,900	304,879	6,243,000	208.0	
30	7.51	6,777,400	525,986	6,142,500	213.3	
31	7.06	6,911,700	540,604	6,345,000	217.0	

# 2013 Flow Review

Raw Water	Finished Water	Waste Water	PCH	Turbidity	Month
222,671,400	208,437,700	15,799,536	7,289.7	18.39	Jan
201,756,500	190,623,000	9,041,072	5,843.7	12.98	Feb
209,947,900	189,218,900	10,558,075	6,947.3	22.88	Mar
199,305,600	181,531,400	13,469,467	6,659.7	24.21	Apr
206,371,400	183,429,800	13,924,583	6,058.4	9.53	May
195,745,500	174,497,400	12,595,243	7,432.2	44.91	Jun
202,597,400	186,322,000	12,722,128	8,801.1	23.09	Jul
192,681,800	179,292,000	13,272,459	7,305.6	9.14	Aug
189,892,100	173,286,300	13,131,567	7,134.6	15.23	Sep
191,123,400	173,837,600	12,258,633	5,761.6	5.15	Oct
182,699,200	174,300,500	10,330,383	5,764.2	5.27	Nov
194,455,000	183,851,300	10,535,962	7,963.9	32.00	Dec
2,389,247,200 Gallons	2,198,627,900 Gallons	147,639,108 Gallons	82,962.0 Gallons	18.57 AVG NTU	



**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Jan-13

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	6.90	6,934,400	535,960	6,439,200	215.0	
2	7.06	7,149,600	621,949	6,530,800	226.8	Raw Turb Monthly Avg.
3	4.78	7,524,500	517,638	6,921,500	234.0	18.39
4	4.51	6,707,000	734,785	6,162,300	192.5	Filtered Water Total
5	4.17	7,349,600	637,660	6,812,500	210.3	208,437,700
6	4.46	7,363,400	403,071	6,446,300	210.8	Raw Water Total
7	4.55	6,972,600	373,286	6,521,500	192.3	222,671,400
8	4.40	7,586,600	924,265	6,956,300	216.5	Pc H180 Total
9	4.46	7,010,100	565,305	6,273,700	205.0	7,289.7
10	5.11	7,828,800	550,015	7,827,100	227.5	Waste Flow Total
11	7.81	6,415,700	589,942	6,086,700	210.0	15,799,536
12	53.52	7,473,100	682,158	6,607,100	325.8	
13	33.93	7,797,700	643,295	7,274,000	291.5	
14	30.91	6,490,100	252,796	6,076,200	264.0	
15	25.53	7,388,200	697,064	6,871,500	264.5	
16	23.28	6,295,200	312,920	5,891,700	220.0	
17	15.56	7,520,600	563,800	6,741,100	246.2	
18	11.88	5,830,200	590,600	5,537,700	185.2	
19	9.73	8,567,100	912,701	7,492,100	247.8	
20	17.58	6,100,000	325,299	5,682,500	235.0	
21	0.00	7,182,100	591,212	6,224,700	220.3	
22	0.00	7,280,300	370,648	7,058,500	238.8	
23	0.00	6,331,500	313,255	6,068,500	173.5	
24	0.00	7,057,900	467,598	6,527,800	172.0	
25	5.18	6,881,600	305,377	6,928,600	171.0	
26	4.23	7,354,600	291,102	6,975,400	188.8	
27	3.87	7,143,100	477,188	6,802,500	193.3	
28	3.69	6,721,600	90,187	6,315,600	182.5	
29	25.36	8,450,800	676,355	8,084,400	251.8	
30	50.63	8,276,500	316,778	8,055,000	397.8	
31	197.03	7,686,900	465,327	8,244,900	479.5	

21st through 24th lost due to printer error

**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Feb-13

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	60.90	6,987,100	269,611	7,051,600	284.5	
2	40.20	9,161,400	671,162	8,310,800	345.2	Raw Turb Monthly Avg.
3	23.91	6,903,200	275,890	6,634,500	236.8	12.98
4	15.04	7,395,600	89,462	7,388,900	256.3	Filtered Water Total
5	10.62	7,730,900	501,469	7,591,800	263.0	190,623,000
6	9.31	7,625,700	524,679	7,285,700	234.5	Raw Water Total
7	7.73	7,360,500	273,644	7,213,800	208.5	201,756,500
8	7.05	6,179,900	443,410	5,817,800	189.0	Pc H180 Total
9	6.26	6,886,000	257,775	6,930,600	198.8	5,843.7
10	5.18	6,888,800	292,906	6,557,500	212.3	Waste Flow Total
11	5.70	6,833,900	273,769	6,687,300	214.3	9,041,072
12	6.20	6,928,300	293,827	6,664,200	177.3	
13	5.96	6,839,700	296,614	6,521,000	172.8	
14	9.09	7,292,800	514,402	6,504,700	188.0	
15	11.71	6,987,100	474,707	6,379,400	171.8	
16	9.88	7,729,100	275,640	7,188,100	196.0	
17	7.95	7,119,000	264,606	6,417,900	210.0	
18	6.87	6,858,500	470,833	6,271,700	167.0	
19	5.26	7,243,000	107,019	6,936,300	182.0	
20	4.17	6,770,800	315,044	6,461,500	169.5	
21	4.61	8,307,300	276,440	7,623,200	197.3	
22	4.18	6,102,200	439,537	5,685,700	143.8	
23	3.93	7,720,600	378,674	6,972,600	177.8	
24	4.16	8,670,600	14,953	8,610,500	170.5	
25	3.56	6,180,200	177,261	5,820,900	159.0	
26	3.42	6,653,300	314,516	6,082,700	166.8	
27	40.15	7,531,800	269,602	6,883,200	252.5	
28	40.33	6,869,200	283,620	6,129,100	298.8	
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**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Mar-13

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	16.04	6,319,500	417,910	5,581,300	227.5	
2	10.39	7,176,100	453,960	6,392,700	246.2	Raw Turb Monthly Avg.
3	8.86	6,970,300	277,887	6,222,000	259.8	22.88
4	8.53	7,273,400	445,995	6,597,100	221.8	Filtered Water Total
5	5.50	6,758,200	256,238	6,302,000	225.0	189,218,900
6	5.63	6,709,000	49,742	6,242,800	204.0	Raw Water Total
7	4.61	6,963,200	278,431	6,119,400	230.5	209,947,900
8	5.23	6,669,500	629,123	6,088,400	209.5	Pc H180 Total
9	6.65	6,399,300	242,656	5,875,200	208.8	6,947.3
10	9.30	7,356,500	136,985	6,517,300	193.5	Waste Flow Total
11	15.06	6,602,800	936,034	5,972,800	221.3	10,558,075
12	171.84	7,030,300	384,307	6,366,700	366.8	
13	104.04	7,669,800	516,933	6,744,800	379.8	
14	96.38	6,297,400	289,546	5,635,100	282.0	
15	50.47	6,160,600	476,942	5,351,600	244.8	
16	28.88	6,660,800	110,205	6,414,200	212.5	
17	19.63	7,271,600	337,875	6,781,500	242.8	
18	15.24	7,031,200	318,228	6,043,400	218.3	
19	17.31	6,764,800	290,132	5,972,500	222.3	
20	16.04	7,026,800	462,476	6,193,300	224.8	
21	10.85	7,319,000	255,940	6,569,500	226.0	
22	13.53	6,274,800	452,927	5,896,300	197.3	
23	10.86	6,638,400	268,556	6,105,100	179.8	
24	8.29	6,835,800	286,197	5,952,400	230.0	
25	7.51	6,570,800	117,408	6,141,600	198.5	
26	7.21	6,667,400	272,240	6,070,100	188.0	
27	7.95	7,027,000	463,496	6,195,500	202.5	
28	7.11	5,880,000	288,300	5,266,500	163.2	
29	6.47	6,342,800	411,793	5,527,200	179.8	
30	5.49	6,443,400	266,953	5,884,800	165.5	
31	8.46	6,837,400	162,660	6,195,800	175.0	

**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Apr-13

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	28.84	6,690,800	600,826	5,496,400	236.3	
2	16.89	6,709,600	109,111	6,218,900	211.5	Raw Turb Monthly Avg.
3	9.26	6,510,800	92,543	5,969,600	206.3	24.21
4	8.17	7,193,600	248,939	6,398,800	203.3	Filtered Water Total
5	8.30	5,701,600	248,461	5,095,400	166.8	181,531,400
6	5.67	7,473,200	693,661	6,725,300	215.8	Raw Water Total
7	6.36	5,961,600	110,777	8,842,200	184.5	199,305,600
8	6.07	6,682,800	679,217	6,126,500	220.0	Pc H180 Total
9	6.18	6,825,200	865,694	6,051,600	216.8	6,659.7
10	46.49	7,052,400	427,194	6,318,200	273.5	Waste Flow Total
11	35.66	6,499,000	301,749	5,975,500	258.0	13,469,467
12	36.24	5,741,000	144,851	5,558,400	192.3	
13	32.60	5,807,600	114,100	5,284,200	214.0	
14	38.87	6,694,600	501,500	5,983,200	281.8	
15	27.01	6,119,800	306,694	5,470,100	241.5	
16	20.31	7,825,200	693,226	6,088,200	267.5	
17	19.80	6,457,400	1,032,982	5,543,100	225.8	
18	19.85	6,447,000	521,892	5,918,900	206.3	
19	107.73	5,932,000	345,236	5,568,700	214.0	
20	79.61	6,254,000	376,767	5,807,800	288.3	
21	46.75	6,487,200	100,623	6,182,900	244.0	
22	23.04	6,300,400	166,814	5,751,500	224.0	
23	16.96	6,994,000	727,075	5,887,500	247.0	
24	16.49	7,323,600	606,481	6,647,300	257.3	
25	14.77	6,843,800	283,710	6,331,700	207.5	
26	12.74	7,668,600	544,578	6,048,900	207.5	
27	9.92	6,404,800	519,222	5,735,100	172.5	
28	9.70	6,584,400	274,612	5,957,800	184.3	
29	8.00	7,150,800	1,024,507	6,308,900	198.0	
30	8.11	6,968,800	806,425	6,238,800	193.8	
31						

**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
May-13

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	6.79	7,009,600	656,433	6,229,700	189	
2	6.33	7,172,800	689,425	6,308,000	196	Raw Turb Monthly Avg.
3	6.23	6,470,400	276,202	6,017,100	177	9.53
4	6.69	7,067,200	636,553	6,259,800	198	Filtered Water Total
5	6.02	6,783,200	440,886	5,902,500	210	183,429,800
6	6.18	6,632,400	253,254	6,103,400	219	Raw Water Total
7	5.89	7,992,200	449,095	7,025,800	274	206,371,400
8	7.37	7,419,200	613,375	6,344,100	227	Pc H180 Total
9	6.29	6,684,400	201,923	5,546,100	202	6,058.4
10	6.18	6,747,600	600,140	6,087,800	189	Waste Flow Total
11	8.75	6,485,800	394,076	5,585,700	186	13,924,583
12	8.07	6,437,600	403,888	5,586,800	191	
13	4.77	6,604,400	383,034	6,013,300	177	
14	4.21	6,849,200	506,168	6,113,600	206	
15	6.25	6,241,600	359,483	5,466,600	183	
16	5.45	6,226,400	180,328	6,036,900	181	
17	4.95	6,581,200	276,371	5,897,200	184	
18	5.12	7,582,800	520,742	6,625,500	213	
19	5.16	6,722,000	187,485	5,724,500	185	
20	4.99	5,848,600	165,802	5,342,300	160	
21	7.54	6,956,200	740,318	6,229,600	186	
22	6.39	7,724,400	306,988	6,588,800	203	
23	6.68	6,443,200	531,979	5,692,600	184	
24	6.41	6,465,200	303,754	5,976,800	183	
25	8.95	5,584,400	298,023	5,107,800	155	
26	8.96	6,009,200	151,688	5,383,600	166	
27	18.36	6,212,200	331,010	5,562,200	187	
28	19.78	7,099,000	1,053,698	6,002,200	241	
29	17.27	5,596,800	799,525	5,143,300	195	
30	13.66	5,929,600	388,899	5,395,700	172	
31	59.83	6,792,600	824,038	6,130,500	245	



**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Jun-13

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	66.75	6,844,200	351,762	6,207,900	325.5	Raw Turb Monthly Avg.
2	42.75	7,006,800	156,999	6,244,000	296.5	
3	22.84	6,756,600	629,396	6,053,200	234.0	44.91
4	21.42	6,738,400	297,802	5,941,200	220.3	Filtered Water Total
5	18.14	7,444,600	647,492	6,117,200	224.8	174,497,400
6	18.08	6,286,800	332,744	5,388,600	207.3	Raw Water Total
7	16.10	5,950,000	363,578	5,182,300	171.8	195,745,500
8	16.72	5,656,000	291,929	5,263,000	160.5	Pc H180 Total
9	24.32	6,358,000	326,392	5,733,200	183.8	7,432.2
10	18.25	6,626,800	455,445	5,846,400	192.5	Waste Flow Total
11	17.96	6,230,800	586,441	5,276,500	183.8	12,595,243
12	27.94	6,512,400	458,241	5,789,200	183.8	
13	43.25	6,136,800	158,722	5,743,900	223.0	
14	53.98	6,144,600	498,293	5,603,300	251.3	
15	61.21	5,855,100	153,950	5,381,300	249.3	
16	52.07	5,807,200	471,674	5,377,600	242.5	
17	38.86	6,385,800	203,458	5,974,900	267.8	
18	27.60	6,467,400	355,691	5,882,900	231.8	
19	27.05	6,766,800	552,045	6,252,700	211.0	
20	20.97	6,414,000	287,645	5,958,100	195.8	
21	18.12	6,724,400	165,748	6,319,600	194.0	
22	17.33	6,503,200	785,989	5,851,500	186.3	
23	16.12	6,917,600	200,519	6,276,800	201.5	
24	11.62	6,570,800	247,621	6,000,600	203.3	
25	15.66	6,521,800	601,695	5,701,400	216.0	
26	15.34	7,891,400	366,467	6,517,500	265.0	
27	29.10	6,276,800	361,285	5,706,100	220.8	
28	374.24	7,097,600	1,320,203	5,513,400	485.0	
29	129.98	6,819,600	758,343	5,907,800	577.5	
30	83.62	6,033,200	207,674	5,485,300	426.3	
31						



**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Jul-13

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	130.61	6,991,600	618,422	6,090,300	450.3	
2	91.99	5,911,200	380,933	5,199,000	397.5	Raw Turb Monthly Avg.
3	56.72	6,190,000	169,938	5,784,500	266.0	23.09
4	55.06	6,231,200	699,876	5,489,200	254.0	Filtered Water Total
5	37.51	6,626,400	351,024	5,805,200	264.2	186,322,000
6	28.86	6,334,400	331,695	5,781,600	220.0	Raw Water Total
7	22.32	6,943,200	439,100	6,361,200	233.8	202,597,400
8	22.78	6,062,800	278,590	5,523,300	231.2	Pc H180 Total
9	24.08	6,380,600	481,725	5,869,300	228.5	8,801.1
10	21.60	6,532,200	414,597	5,624,400	214.3	Waste Flow Total
11	17.04	6,524,000	386,618	6,110,000	226.3	12,722,128
12	12.66	6,279,000	180,725	5,859,700	216.8	
13	10.93	6,843,200	427,608	6,124,300	228.5	
14	7.11	6,176,800	499,067	5,367,800	224.8	
15	5.70	6,739,000	133,253	6,276,100	244.8	
16	5.31	6,932,000	592,481	6,113,800	273.8	
17	4.80	7,503,200	672,552	6,826,800	346.3	
18	5.37	6,985,200	380,759	6,585,900	362.3	
19	6.17	7,025,600	248,555	7,028,700	367.3	
20	4.86	7,041,200	643,212	6,120,300	361.5	
21	4.35	7,095,000	570,463	6,254,400	351.8	
22	2.87	6,279,200	195,831	5,811,800	301.2	
23	4.38	6,661,800	385,123	6,188,600	322.3	
24	40.81	6,816,000	821,846	5,996,800	328.5	
25	40.49	6,270,000	360,947	5,835,700	309.3	
26	12.72	6,449,200	152,353	6,400,500	279.8	
27	9.08	5,607,000	386,283	6,014,200	246.3	
28	8.45	6,332,200	373,778	5,472,400	267.5	
29	8.75	6,490,200	391,850	6,313,100	288.3	
30	7.20	6,316,200	594,617	5,996,700	262.5	
31	5.16	6,027,800	158,307	6,096,400	232.0	

**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Aug-13

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	6.75	6,136,400	538,065	5,879,300	239.3	
2	5.22	6,018,200	563,100	5,786,800	224.3	Raw Turb Monthly Avg.
3	5.10	6,460,800	239,999	6,199,300	208.5	9.14
4	4.65	5,348,000	221,444	5,038,500	220.0	Filtered Water Total
5	4.06	6,197,000	396,093	5,942,800	220.0	179,292,000
6	3.53	6,585,000	684,020	5,998,400	239.8	Raw Water Total
7	4.19	6,446,400	414,847	6,134,500	232.5	192,681,800
8	4.76	5,904,000	225,721	5,792,900	228.0	Pc H180 Total
9	6.72	6,400,800	427,589	6,078,000	230.8	7,305.6
10	34.26	6,258,600	666,843	5,557,600	264.3	Waste Flow Total
11	25.64	6,260,600	421,442	5,594,500	319.0	13,272,459
12	12.66	5,506,200	180,820	5,429,400	248.5	
13	10.77	6,314,200	438,814	5,726,500	246.5	
14	13.18	5,870,400	418,657	5,439,300	196.8	
15	22.55	6,258,200	527,029	5,768,100	237.5	
16	12.77	5,985,200	366,482	5,739,400	215.2	
17	8.73	6,360,600	702,000	5,594,400	205.5	
18	6.63	5,872,600	296,473	5,427,000	198.8	
19	6.63	6,049,800	299,682	5,742,400	201.3	
20	6.23	6,384,000	464,022	6,010,300	221.3	
21	6.17	6,644,800	646,798	6,007,000	239.3	
22	6.24	6,513,600	406,140	6,186,500	255.8	
23	6.16	6,562,400	370,708	6,104,700	308.0	
24	5.27	6,070,000	492,479	5,596,200	252.0	
25	5.89	6,070,400	175,828	5,664,200	266.3	
26	7.13	6,481,800	561,347	5,825,100	278.0	
27	7.66	6,232,200	186,429	5,970,400	224.3	
28	8.56	6,437,000	621,011	5,665,600	231.5	
29	8.09	6,317,800	364,573	5,908,800	215.5	
30	8.08	6,396,400	165,741	6,002,500	210.3	
31	9.00	6,338,400	788,263	5,481,600	227.3	

**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
**Sep-13**

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	14.13	5,589,200	379,606	5,061,600	194.8	
2	26.85	6,217,600	269,035	5,707,600	293.0	Raw Turb Monthly Avg.
3	23.33	6,236,400	429,509	5,624,200	248.8	15.23
4	88.94	6,223,600	869,106	5,340,200	502.5	Filtered Water Total
5	66.07	6,785,600	472,939	5,824,900	505.5	173,286,300
6	37.97	5,822,800	397,161	5,551,500	372.0	Raw Water Total
7	20.84	6,024,400	504,350	5,582,600	311.5	189,892,100
8	11.94	6,141,200	152,939	5,779,300	260.8	Pc H180 Total
9	9.79	6,456,400	361,281	5,943,300	264.8	7,134.6
10	9.15	6,704,000	823,022	5,797,100	225.2	Waste Flow Total
11	13.98	6,219,800	276,768	6,059,600	218.5	13,131,567
12	14.61	6,478,600	263,490	6,240,300	219.3	
13	14.05	6,432,400	572,344	5,806,200	215.5	
14	10.99	6,463,400	597,256	5,749,500	210.5	
15	8.60	6,416,200	208,506	5,888,800	186.8	
16	7.34	6,012,000	391,428	5,671,600	201.0	
17	7.22	6,393,600	295,792	6,132,000	210.5	
18	7.64	7,307,600	275,059	6,900,600	220.0	
19	6.62	6,186,800	235,125	5,849,900	197.3	
20	6.84	6,587,200	595,101	5,794,600	193.3	
21	6.61	6,867,200	486,239	6,131,200	214.3	
22	6.36	5,770,800	451,245	5,173,000	181.3	
23	4.39	6,435,400	797,496	5,649,900	192.0	
24	4.43	6,479,800	946,803	5,770,100	198.0	
25	4.00	6,915,100	433,357	6,392,000	188.0	
26	5.12	6,419,200	308,780	6,026,000	190.0	
27	4.89	6,284,000	392,185	5,916,200	183.8	
28	5.11	5,882,600	135,910	5,162,500	170.5	
29	4.95	5,847,800	608,613	5,101,700	167.0	
30	4.13	6,291,400	201,122	5,658,300	198.5	
31						

**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Oct-13

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	3.56	6,573,000	463,150	5,960,600	210.5	Raw Turb Monthly Avg. <b>5.15</b>
2	4.62	6,767,200	683,181	6,016,400	230.5	
3	4.62	6,891,000	221,599	5,683,200	253.8	
4	5.06	6,239,800	219,009	5,690,100	222.8	Filtered Water Total <b>173,837,600</b>
5	4.77	6,449,600	984,750	5,364,200	219.8	Raw Water Total <b>191,123,400</b>
6	13.91	6,281,200	234,441	5,711,300	210.3	Pc H180 Total <b>5,761.6</b>
7	36.12	6,382,200	114,739	5,984,300	247.2	Waste Flow Total <b>12,258,633</b>
8	17.95	6,471,600	624,485	5,676,400	268.0	
9	4.48	6,413,800	587,892	5,454,400	185.8	
10	3.30	5,592,600	208,281	5,618,100	139.0	
11	3.29	6,181,400	154,881	5,762,900	179.8	
12	3.38	6,548,400	724,653	5,880,800	184.0	
13	3.71	5,730,800	149,347	5,414,300	162.0	
14	4.01	5,669,800	326,363	5,054,200	160.8	
15	4.77	5,908,200	377,830	5,528,400	153.5	
16	4.14	6,451,400	338,377	5,846,100	160.3	
17	3.06	5,937,000	438,947	5,447,100	176.3	
18	4.12	5,806,200	192,722	5,556,000	170.5	
19	3.20	6,115,000	579,985	5,366,000	183.5	
20	2.77	6,096,800	176,479	5,753,200	186.0	
21	2.83	5,460,800	168,905	4,928,900	153.5	
22	2.58	6,504,600	740,507	5,812,200	168.8	
23	1.87	6,716,200	246,602	6,649,000	159.8	
24	2.14	5,501,000	153,498	5,050,600	153.3	
25	2.59	6,086,200	837,107	5,270,600	171.5	
26	2.89	6,449,000	453,894	5,803,800	174.3	
27	2.80	5,901,400	301,472	5,398,400	167.8	
28	2.70	6,251,400	489,539	5,726,300	179.8	
29	1.48	5,811,200	410,194	5,267,600	169.0	
30	1.42	5,928,400	444,987	5,534,500	173.0	
31	1.48	6,006,200	210,817	5,627,700	187.0	

**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Nov-13

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	3.56	5,882,600	491,683	7,472,400	151.0	
2	4.62	5,894,800	170,288	5,574,100	172.5	Raw Turb Monthly Avg.
3	4.62	6,005,400	221,357	5,766,300	172.8	5.27
4	5.06	6,230,200	399,777	5,609,600	185.3	Filtered Water Total
5	4.77	6,285,000	473,225	5,770,900	170.5	174,300,500
6	13.91	6,362,400	876,003	5,962,300	158.3	Raw Water Total
7	36.12	5,952,000	178,654	5,612,500	168.5	182,699,200
8	17.95	6,251,200	451,748	5,819,700	214.3	Pc H180 Total
9	4.48	6,418,800	516,932	5,735,700	180.8	5,764.2
10	3.30	6,024,000	303,715	5,654,800	170.0	Waste Flow Total
11	3.29	6,874,400	153,447	6,541,400	199.5	10,330,383
12	3.38	5,886,800	738,682	5,168,200	163.8	
13	3.71	6,200,800	306,399	5,875,700	182.0	
14	4.01	6,092,000	136,476	5,897,300	188.3	
15	4.77	5,800,800	154,792	5,566,800	184.3	
16	4.14	6,501,800	463,428	6,095,900	185.3	
17	3.06	6,235,800	516,099	5,696,200	172.3	
18	4.12	6,250,200	173,914	5,909,300	175.0	
19	3.20	6,087,800	323,397	5,905,100	169.8	
20	2.77	6,238,200	159,407	6,284,000	163.5	
21	2.83	5,967,000	101,428	5,932,500	175.5	
22	2.58	6,059,200	358,050	5,511,400	166.8	
23	1.87	6,444,000	671,185	6,218,300	181.5	
24	2.14	5,671,600	282,856	5,491,600	173.8	
25	2.59	5,486,000	104,271	5,016,300	177.0	
26	2.89	6,174,400	678,284	5,900,400	183.0	
27	2.80	6,065,600	328,780	5,646,300	394.0	
28	2.70	5,873,200	139,006	5,836,000	327.0	
29	1.48	5,960,400	398,929	5,560,100	251.8	
30	1.42	5,522,800	58,171	5,269,400	206.5	
31						



**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Dec-13

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	13.28	6,503,600	652,314	5,928,900	224.8	Raw Turb Monthly Avg. <b>32.00</b>
2	10.86	6,202,800	122,500	6,062,800	230.2	
3	9.38	6,076,400	170,924	5,866,900	211.5	
4	8.50	6,459,600	351,933	6,067,400	189.8	Filtered Water Total
5	11.02	6,175,600	372,331	6,127,900	192.8	<b>183,851,300</b>
6	49.36	6,169,200	118,993	5,873,000	276.5	Raw Water Total
7	15.28	6,476,000	801,600	5,678,000	291.5	<b>194,455,000</b>
8	13.82	6,439,200	53,094	6,368,400	220.3	Pc H180 Total
9	11.69	6,132,800	265,624	5,648,200	255.8	<b>7,963.9</b>
10	12.71	5,948,600	599,196	5,711,500	224.0	Waste Flow Total
11	11.57	6,636,800	101,451	6,260,400	234.8	<b>10,535,962</b>
12	7.68	5,853,200	294,618	5,797,100	179.0	
13	6.86	6,112,000	293,098	5,731,100	181.5	
14	6.10	6,275,600	185,144	6,039,800	175.5	
15	5.40	6,225,200	493,559	5,604,300	192.5	
16	9.03	6,072,400	382,501	5,593,700	181.0	
17	4.12	7,084,000	548,226	6,421,300	197.0	
18	4.18	6,382,400	478,410	6,202,700	181.0	
19	4.84	6,215,200	118,902	6,224,500	176.3	
20	7.10	6,844,800	419,702	6,301,200	194.0	
21	212.83	6,490,400	653,133	5,796,000	424.0	
22	102.83	6,048,000	166,494	6,034,400	428.3	
23	93.18	6,027,200	186,959	5,654,400	422.0	
24	53.14	6,288,800	513,779	5,232,100	411.0	
25	37.03	6,414,800	502,784	6,591,600	370.0	
26	25.40	5,875,600	296,727	5,520,100	352.0	
27	17.93	6,116,400	526,717	5,593,200	286.5	
28	16.33	6,142,000	322,966	5,757,400	211.5	
29	138.68	6,426,400	317,038	6,204,200	288.8	
30	47.63	5,576,000	128,947	5,451,800	300.2	
31	24.17	6,764,000	96,298	6,507,000	260.2	



2014 Flow Review

Month	Turbidity	PCH	Waste Water	Finished Water	Raw Water
Jan	31.11	8,279.1	11,860,780	199,739,200	210,535,200
Feb	6.73	6,319.9	10,622,077	199,116,900	207,380,400
Mar	45.10	9,235.0	10,947,354	222,215,400	228,854,000
Apr	48.87	7,745.0	10,894,574	201,784,000	210,758,200
May	40.31	7,418.7	13,948,148	201,335,600	214,845,300
Jun	20.78	8,431.7	14,986,912	190,423,400	203,372,800
Jul	10.53	7,759.9	12,583,115	184,776,400	197,286,500
Aug	20.67	8,109.1	11,247,683	180,613,600	191,341,700
Sep	7.41	8,186.9	11,833,791	177,371,600	184,330,500
Oct					
Nov					
Dec					
	25.72	71,485.3	108,924,434	1,757,376,100	1,848,704,600
	AVG NTU	Gallons	Gallons	Gallons	Gallons

**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Jan-14

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	14.67	6,493,600	697,429	5,938,700	237.3	Raw Turb Monthly Avg.
2	8.88	6,200,400	389,100	5,904,300	212.8	
3	6.97	6,030,800	546,570	5,437,800	210.3	
4	5.75	6,102,800	199,051	5,891,800	181.0	31.11
5	5.17	7,044,400	617,428	6,394,800	200.3	Filtered Water Total
6	146.15	6,562,400	350,848	6,358,500	489.5	199,739,200
7	50.40	7,330,000	290,032	6,835,400	321.3	Raw Water Total
8	37.13	6,672,800	677,522	6,246,800	316.0	210,535,200
9	19.17	7,155,400	121,296	7,025,600	342.0	Pc H180 Total
10	14.02	6,593,800	270,547	6,557,500	327.0	8,279.1
11	193.05	6,318,400	459,039	6,193,900	391.3	Waste Flow Total
12	67.16	7,093,600	303,870	6,841,800	404.5	11,860,780
13	71.35	6,506,000	662,061	6,096,900	306.8	
14	67.82	7,120,400	490,537	6,505,600	346.8	
15	50.68	6,846,800	265,613	6,605,000	292.5	
16	49.35	6,714,000	186,224	6,632,900	281.0	
17	38.48	6,020,400	393,743	5,782,200	233.5	
18	26.88	6,854,400	462,541	6,283,800	269.3	
19	19.04	6,980,400	377,805	6,437,900	247.0	
20	13.79	6,297,600	343,661	6,086,300	216.0	
21	9.83	7,032,000	325,076	6,690,800	230.0	
22	7.21	6,935,200	319,103	6,607,300	224.5	
23	6.75	6,635,600	336,041	6,324,400	218.8	
24	5.27	6,875,600	488,599	6,140,900	225.0	
25	5.65	6,971,600	491,187	6,393,000	240.0	
26	4.65	7,534,800	146,330	7,489,900	221.2	
27	4.28	7,110,400	477,069	6,603,800	217.5	
28	4.08	7,589,200	813,900	6,828,100	237.0	
29	3.68	7,147,600	110,965	6,946,700	212.5	
30	3.69	6,850,000	163,098	6,783,900	214.5	
31	3.28	6,914,800	84,495	6,872,900	212.3	

**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Feb-14

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	3.27	8,850,400	904,472	8,023,200	205	
2	3.14	8,118,800	310,362	7,927,000	224	Raw Turb Monthly Avg.
3	3.06	7,185,200	157,599	7,188,600	218	6.73
4	3.21	7,580,800	618,233	7,061,600	216	Filtered Water Total
5	3.27	7,370,400	663,708	6,584,500	208	199,116,900
6	3.16	7,016,000	272,607	6,780,000	216	Raw Water Total
7	2.92	7,268,000	300,881	7,150,600	194	207,380,400
8	2.81	7,604,400	117,836	7,533,500	219	Pc H180 Total
9	2.55	6,797,200	428,954	6,239,400	214	6,319.9
10	2.49	7,714,000	529,514	7,330,500	228	Waste Flow Total
11	2.47	7,724,000	292,555	7,421,800	220	10,622,077
12	2.62	7,489,200	667,018	6,897,000	210	
13	3.53	7,625,600	116,284	8,024,600	212	
14	3.23	7,072,400	267,441	6,848,700	198	
15	2.37	7,058,000	754,448	6,473,700	186	
16	2.22	7,502,400	104,196	7,534,200	210	
17	2.16	6,639,600	277,418	6,339,000	197	
18	2.27	7,745,200	602,038	7,156,000	201	
19	2.47	7,523,200	296,385	7,412,500	201	
20	7.76	6,824,800	254,098	6,582,100	233	
21	37.19	8,222,000	552,367	7,821,800	354	
22	28.63	7,698,000	540,188	7,221,300	340	
23	18.41	5,973,600	197,659	5,935,100	252	
24	14.12	7,188,400	326,242	6,946,300	255	
25	10.29	7,668,800	442,764	7,361,500	251	
26	7.92	7,345,200	102,191	7,148,200	218	
27	6.08	6,699,600	258,282	6,581,400	209	
28	4.87	7,875,200	266,337	7,592,800	236	
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**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Mar-14

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	4.53	7,247,200	456,200	7,106,400	216.5	
2	4.46	7,003,600	314,785	6,525,000	210.0	Raw Turb Monthly Avg.
3	3.84	7,493,600	421,596	7,187,400	236.0	45.10
4	3.73	7,349,900	438,306	6,861,800	223.0	Filtered Water Total
5	3.51	7,199,100	444,932	6,816,000	216.5	222,215,400
6	2.63	7,559,300	271,409	7,372,200	229.5	Raw Water Total
7	2.93	8,341,600	374,416	7,833,000	244.3	228,854,000
8	3.24	7,855,900	625,287	7,336,200	227.5	Pc H180 Total
9	3.85	6,397,100	293,725	6,330,200	190.5	9,235.0
10	6.00	7,790,700	159,690	7,652,400	236.5	Waste Flow Total
11	129.02	7,326,900	727,079	7,084,200	365.5	10,947,354
12	204.70	7,070,400	272,197	8,277,200	443.0	
13	55.11	9,755,100	86,180	9,574,200	456.0	
14	46.65	5,301,700	265,002	5,230,400	387.8	
15	40.38	7,263,700	593,672	6,870,000	372.0	
16	29.75	7,202,900	66,576	7,198,200	433.0	
17	22.53	7,648,700	463,566	7,148,400	361.0	
18	18.54	7,840,700	393,384	7,350,600	305.2	
19	14.58	7,311,000	614,551	6,575,600	247.8	
20	22.15	7,242,900	84,095	7,245,800	243.8	
21	17.85	7,210,200	102,712	7,059,200	301.8	
22	18.58	7,244,900	429,392	7,008,600	256.5	
23	16.07	8,213,300	592,765	7,744,000	284.5	
24	13.03	6,742,400	113,734	6,840,200	245.0	
25	11.00	7,395,400	445,596	7,037,400	243.5	
26	13.65	7,757,100	583,266	7,461,200	228.8	
27	9.78	7,356,200	266,025	7,252,600	223.0	
28	26.52	6,919,000	91,443	7,042,200	247.0	
29	103.76	7,650,400	811,609	8,792,800	367.5	
30	378.60	7,650,400	48,758	5,755,200	541.3	
31	167.01	6,512,700	95,406	6,646,800	451.0	

**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
**Apr-14**

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	136.50	7,546,600	443,802	7,202,000	488.3	Raw Turb Monthly Avg.
2	96.56	7,788,300	488,550	7,165,300	417.0	
3	58.27	7,238,200	264,635	7,139,500	333.5	48.87
4	56.19	6,327,800	264,959	6,190,000	264.0	Filtered Water Total
5	53.34	7,715,700	354,231	7,260,600	289.8	201,784,000
6	35.12	7,512,400	501,913	6,773,600	267.0	Raw Water Total
7	36.54	7,340,000	129,893	7,357,000	261.0	210,758,200
8	47.33	7,014,700	330,549	6,705,600	282.0	Pc H180 Total
9	35.18	7,131,300	627,038	6,535,800	231.0	7,745.0
10	33.40	7,277,700	157,747	7,072,600	234.8	Waste Flow Total
11	38.53	6,097,700	358,119	6,085,600	196.5	10,894,574
12	33.92	7,219,700	361,096	6,759,000	222.3	
13	31.50	7,267,300	288,103	6,694,200	227.3	
14	36.98	6,244,400	308,873	5,829,600	234.2	
15	175.84	6,322,600	159,432	6,157,600	328.5	
16	145.00	7,731,500	836,165	6,860,600	336.5	
17	120.00	6,025,000	204,442	5,915,000	302.0	
18	66.00	6,045,900	194,556	6,007,600	250.0	
19	44.00	7,019,200	482,974	7,632,000	265.3	
20	25.00	6,785,500	382,685	6,230,800	227.8	
21	20.00	6,651,600	142,832	6,611,200	215.8	
22	19.00	7,595,200	155,121	7,438,600	221.8	
23	20.00	7,721,500	880,958	7,265,000	213.8	
24	18.00	7,368,700	226,464	7,125,600	210.0	
25	16.00	6,735,200	452,592	6,578,400	195.0	
26	17.00	6,621,900	268,439	5,815,200	171.3	
27	15.00	6,274,600	173,036	6,356,800	190.5	
28	12.00	7,297,600	556,125	7,040,800	211.0	
29	12.00	6,919,700	352,420	6,660,800	204.5	
30	12.00	7,920,700	546,825	7,317,600	252.5	
31						

**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
May-14

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	21.57	6,790,300	503,893	6,593,600	206.8	
2	23.30	6,161,900	292,543	5,999,200	192.0	Raw Turb Monthly Avg.
3	22.47	6,019,600	157,167	5,898,400	166.8	40.31
4	57.68	7,192,500	168,566	6,692,400	138.4	Filtered Water Total
5	14.17	7,043,400	1,110,205	6,534,200	208.5	201,335,600
6	11.57	6,908,300	395,381	6,668,600	204.0	Raw Water Total
7	9.20	7,257,500	534,432	7,053,200	204.5	214,845,300
8	8.50	7,529,600	363,915	6,867,600	213.0	Pc H180 Total
9	10.39	6,406,700	616,996	6,182,800	192.0	7,418.7
10	9.16	6,718,000	386,194	6,254,000	191.3	Waste Flow Total
11	10.36	7,136,100	226,261	6,633,200	237.0	13,948,148
12	7.67	6,673,000	313,946	6,385,600	218.8	
13	7.16	7,856,900	804,121	7,155,200	270.5	
14	7.74	7,175,400	436,983	6,604,200	287.5	
15	9.57	6,753,300	205,042	6,485,400	279.5	
16	192.80	7,603,300	341,741	7,523,200	347.5	
17	230.05	6,455,200	169,755	5,596,800	340.5	
18	206.85	7,540,700	343,068	6,806,000	382.8	
19	106.95	6,814,300	1,162,978	6,280,600	354.8	
20	47.92	7,231,900	701,892	6,738,600	280.8	
21	34.25	7,664,000	453,995	7,175,200	214.0	
22	30.08	6,025,600	437,975	5,686,400	199.5	
23	23.18	6,758,100	440,630	6,314,600	189.4	
24	23.13	7,011,000	396,174	6,425,000	191.5	
25	21.17	6,573,800	420,440	6,046,200	199.5	
26	23.49	7,146,600	454,855	6,728,600	244.8	
27	22.04	7,510,600	477,900	6,955,600	279.5	
28	21.21	6,454,600	534,993	5,872,200	247.8	
29	15.68	6,903,100	383,148	6,474,600	247.8	
30	11.00	6,474,800	421,459	6,366,400	214.5	
31	9.25	7,055,200	291,500	6,338,000	273.8	



**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Jun-14

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	9.33	6,637,800	384,810	6,412,800	265.8	
2	8.98	7,572,300	382,741	7,137,000	310.0	Raw Turb Monthly Avg.
3	10.62	6,862,000	361,363	6,404,800	317.5	20.78
4	8.89	7,769,200	918,831	6,054,000	298.8	Filtered Water Total
5	8.99	7,875,600	879,235	7,289,400	345.0	190,423,400
6	9.11	6,154,500	841,747	6,015,400	264.0	Raw Water Total
7	9.76	7,842,700	565,731	6,939,200	343.0	203,372,800
8	10.27	6,872,700	302,328	6,548,600	310.5	Pc H180 Total
9	11.28	7,069,100	374,751	6,853,800	333.2	8,431.7
10	8.43	6,688,200	156,411	6,697,800	288.5	Waste Flow Total
11	9.12	7,597,700	603,869	7,352,400	327.5	14,986,912
12	9.59	7,277,800	366,469	6,938,200	305.3	
13	18.29	6,169,600	207,345	5,895,800	264.0	
14	27.42	6,910,400	578,257	6,346,200	283.8	
15	55.78	6,119,600	532,782	5,484,600	245.0	
16	41.33	7,296,000	437,040	6,966,000	278.0	
17	33.49	6,968,500	186,473	6,007,200	281.5	
18	23.52	6,652,000	535,782	6,346,200	228.3	
19	31.75	6,627,300	1,195,718	5,675,400	262.5	
20	36.44	6,711,500	401,554	6,272,200	217.0	
21	26.95	6,220,100	358,571	5,517,200	198.3	
22	19.29	6,453,900	556,714	6,338,400	263.8	
23	16.62	6,077,700	659,018	6,165,800	265.5	
24	11.88	6,670,900	623,386	6,226,200	309.3	
25	59.91	6,801,000	750,886	6,095,400	304.0	
26	22.58	6,552,400	342,478	6,343,000	299.5	
27	32.51	6,432,100	453,035	6,328,000	260.0	
28	22.96	5,463,500	186,345	5,499,200	247.0	
29	16.83	6,678,100	531,800	5,986,400	258.0	
30	11.59	6,348,600	311,442	6,286,800	257.5	
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**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Jul-14

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	14.39	6,921,700	395,398	6,688,400	279.5	
2	9.64	6,633,400	523,807	6,140,400	264.5	Raw Turb Monthly Avg.
3	9.94	6,709,100	414,939	6,362,400	317.8	10.53
4	10.76	5,695,100	342,803	5,322,200	260.5	Filtered Water Total
5	9.83	5,582,100	407,869	5,310,200	263.0	184,776,400
6	10.49	5,874,900	362,504	5,411,200	267.5	Raw Water Total
7	12.17	6,296,200	457,799	6,224,000	274.5	197,286,500
8	10.22	6,657,200	636,456	6,194,000	262.5	Pc H180 Total
9	11.25	6,708,200	337,533	5,726,000	247.3	7,759.9
10	9.54	6,245,100	189,989	6,104,400	232.5	Waste Flow Total
11	11.67	6,500,000	417,303	6,260,000	238.5	12,583,115
12	9.75	6,366,000	578,685	5,944,800	223.5	
13	14.06	5,883,500	424,874	5,468,400	216.8	
14	19.77	6,469,300	181,418	6,351,600	212.0	
15	17.01	6,000,900	348,920	5,612,400	212.5	
16	10.86	6,706,600	572,055	6,141,200	231.0	
17	9.64	6,099,100	275,104	5,724,800	216.3	
18	10.78	6,572,200	394,254	6,076,800	226.3	
19	9.45	6,559,400	329,286	6,002,400	216.5	
20	9.93	6,294,800	575,179	5,633,800	231.8	
21	9.85	6,609,400	409,498	6,257,400	266.5	
22	8.09	6,476,300	219,629	6,222,400	257.0	
23	9.51	7,194,100	626,627	6,487,400	293.5	
24	8.00	6,428,500	442,134	6,037,400	282.3	
25	7.80	6,464,200	272,348	6,296,000	270.5	
26	8.79	6,266,200	272,477	5,967,000	267.0	
27	7.16	6,022,800	511,237	5,215,000	273.1	
28	6.76	6,104,500	524,291	5,656,600	258.5	
29	7.75	6,222,800	323,567	5,844,200	241.0	
30	11.78	6,581,900	236,033	6,402,600	230.3	
31	9.71	6,141,000	579,099	5,691,000	225.8	

# Waste Water Reporting Sheet

City of Binghamton Water Filtration Plant

Aug-14

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	7.43	5,861,900	364,900	5,861,400	211.3	Raw Turb Monthly Avg. <b>20.67</b>
2	10.39	6,693,500	219,981	6,070,200	252.3	
3	9.99	6,560,700	444,949	6,159,600	263.3	
4	8.38	6,284,000	523,503	5,810,400	261.2	Filtered Water Total <b>180,613,600</b>
5	19.42	6,679,100	436,878	6,529,600	294.0	Raw Water Total <b>191,341,700</b>
6	28.33	6,401,300	189,757	6,201,000	278.5	Pc H180 Total <b>8,109.1</b>
7	7.39	5,727,300	355,092	5,442,600	242.8	Waste Flow Total <b>11,247,683</b>
8	6.95	6,221,500	468,292	5,720,800	259.8	
9	7.32	6,463,900	372,877	5,962,400	274.3	
10	6.84	6,393,600	166,789	5,924,400	252.8	
11	7.28	5,997,100	159,774	5,850,800	271.2	
12	7.21	6,680,300	483,086	6,182,200	283.0	
13	9.80	6,288,300	554,404	5,574,600	255.0	
14	7.95	6,391,100	459,574	5,905,800	292.0	
15	6.32	6,106,000	340,902	5,663,000	276.0	
16	5.75	5,876,500	570,516	5,424,200	275.5	
17	6.01	5,963,800	402,609	5,423,400	263.0	
18	5.94	5,886,000	339,305	5,589,200	283.8	
19	5.28	5,867,500	349,785	5,498,200	273.5	
20	5.44	6,360,200	407,694	5,857,400	283.5	
21	6.55	6,410,800	315,543	6,263,600	296.5	
22	289.86	5,139,400	324,413	5,251,200	320.8	
23	80.10	5,777,400	155,230	5,700,400	268.5	
24	16.09	6,545,900	513,115	5,730,400	279.8	
25	11.60	5,527,700	369,505	5,420,800	220.8	
26	10.71	5,619,200	135,978	5,641,800	194.8	
27	8.97	6,227,500	208,877	5,797,800	221.0	
28	12.66	6,119,300	585,161	5,784,400	213.3	
29	8.17	6,206,300	366,615	6,107,200	212.5	
30	8.37	6,243,600	535,450	5,679,200	233.5	
31	8.28	6,821,000	127,129	6,585,600	301.4	

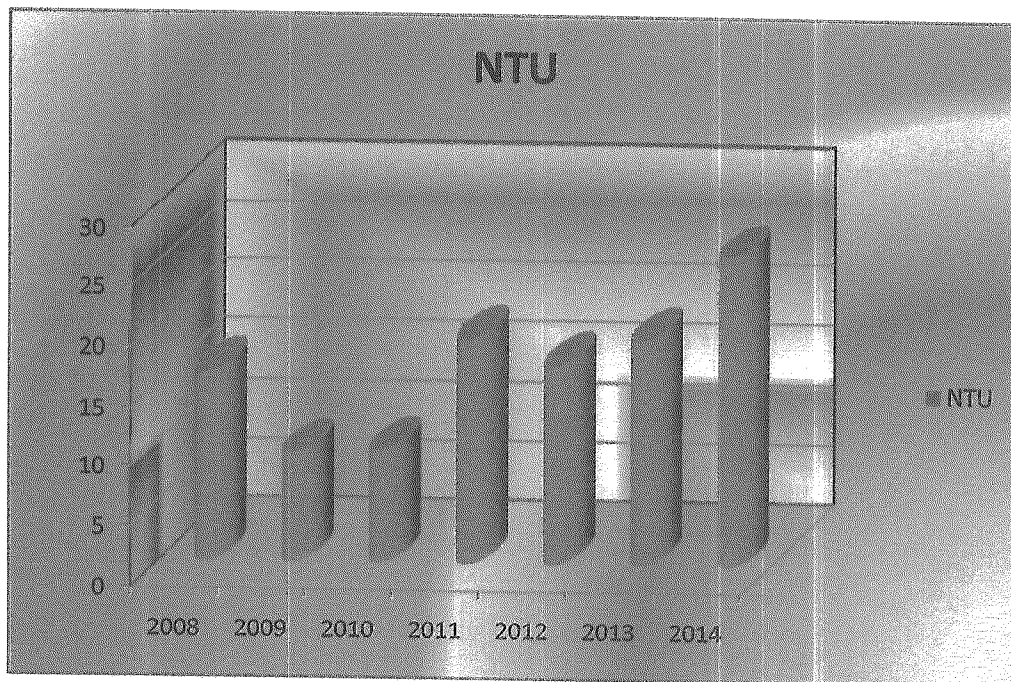
**Waste Water Reporting Sheet**  
City of Binghamton Water Filtration Plant  
Sep-14

Day	Raw Turb Avg.	Raw Flow	Waste Water	Filtered Flow	Pc H180 Gals	Monthly Totals
1	10.76	4,942,200	382,208	4,610,600	236.8	
2	8.55	6,628,400	594,591	6,137,000	305.2	Raw Turb Monthly Avg.
3	10.20	6,297,200	365,794	6,049,600	278.8	7.41
4	8.18	6,160,900	308,395	5,850,000	290.0	Filtered Water Total
5	7.93	6,580,200	333,757	6,202,800	320.0	177,371,600
6	8.64	6,554,100	570,557	5,846,400	347.0	Raw Water Total
7	5.83	5,652,800	157,170	4,821,200	279.5	184,330,500
8	6.62	6,029,600	117,199	6,133,700	330.5	Pc H180 Total
9	6.89	6,650,700	438,263	6,273,700	327.5	8,186.9
10	7.13	7,511,300	683,297	7,010,700	345.0	Waste Flow Total
11	7.32	6,361,100	690,896	6,005,100	286.0	11,833,791
12	8.01	6,275,300	496,140	6,001,500	280.0	
13	6.99	5,996,900	334,238	5,872,400	282.0	
14	6.29	5,858,700	351,581	4,509,500	252.0	
15	6.32	5,879,500	155,166	6,059,800	285.5	
16	7.59	5,958,500	352,317	5,895,200	266.3	
17	6.49	6,608,000	533,821	6,254,800	278.5	
18	6.20	6,365,000	519,875	6,264,800	290.0	
19	6.08	5,553,600	211,917	5,678,200	220.5	
20	6.56	5,666,000	333,903	5,618,600	215.8	
21	7.21	6,667,700	331,531	6,708,600	271.8	
22	7.38	5,431,700	479,894	5,507,000	222.8	
23	8.32	6,330,800	367,586	6,169,500	242.3	
24	7.16	6,701,500	369,727	6,693,300	245.3	
25	8.68	6,482,800	342,412	6,399,500	265.0	
26	6.97	5,463,100	320,802	5,579,600	221.5	
27	6.42	6,353,500	381,697	6,062,800	245.0	
28	7.03	5,800,500	368,514	5,765,800	272.5	
29	6.89	5,814,400	346,938	5,988,500	242.5	
30	7.65	5,754,500	593,605	5,401,400	241.5	
31						

## Turbidity Overview 2008 - 2014YTD

Raw Flow At Water Plant		NTU	
2008	695,347,800	15.7	3 Months
2009	2,687,537,900	9.08	
2010	2,449,121,000	9.32	
2011	2,524,523,600	18.56	9 Months
2012	2,444,779,000	16.43	
2013	2,389,247,200	18.57	
2014	1,848,704,600	25.72	

AVG                      2,148,465,871                      AVG                      16.20



**NTU**                      this number is the basic measure of the clarity of water the lower the number the less Particulate matter in the water.                      This is not the same as TSS (total suspended solids)

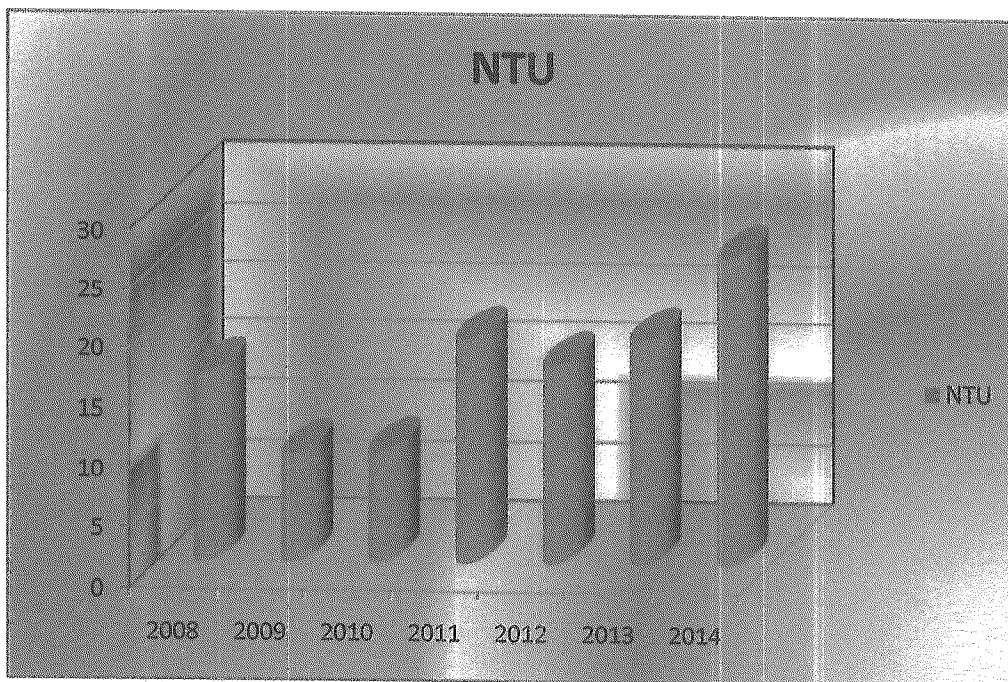
**RAW**                      This is water drawn directly from the river before treatment is received



## Turbidity Overview 2008 - 2014YTD

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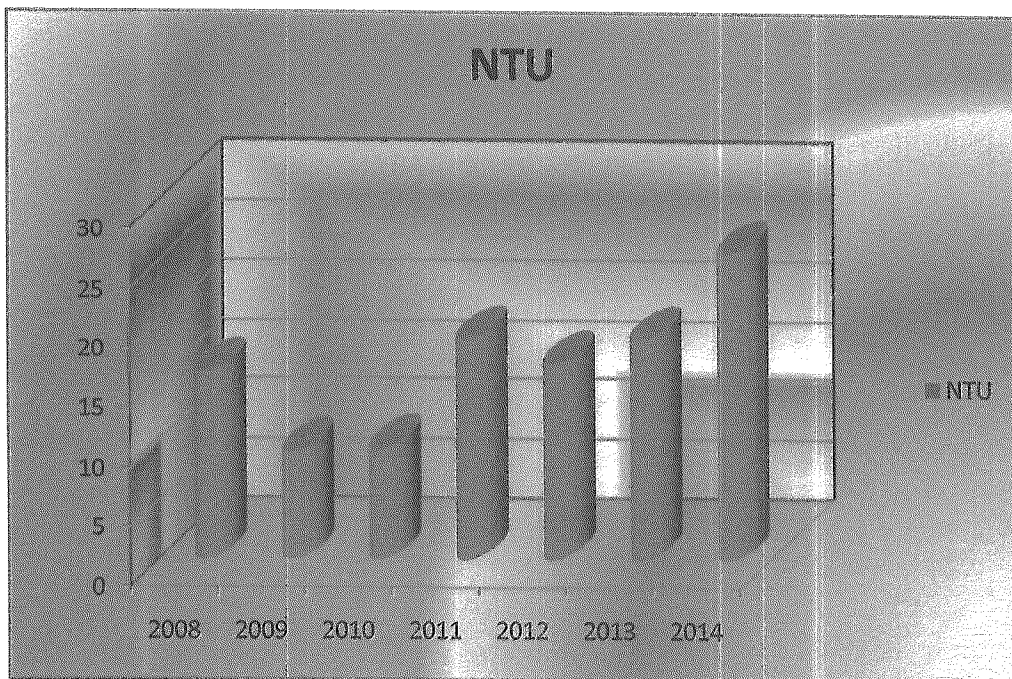
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**AVG**                      **2,148,465,871**                      **AVG**                      **16.20**



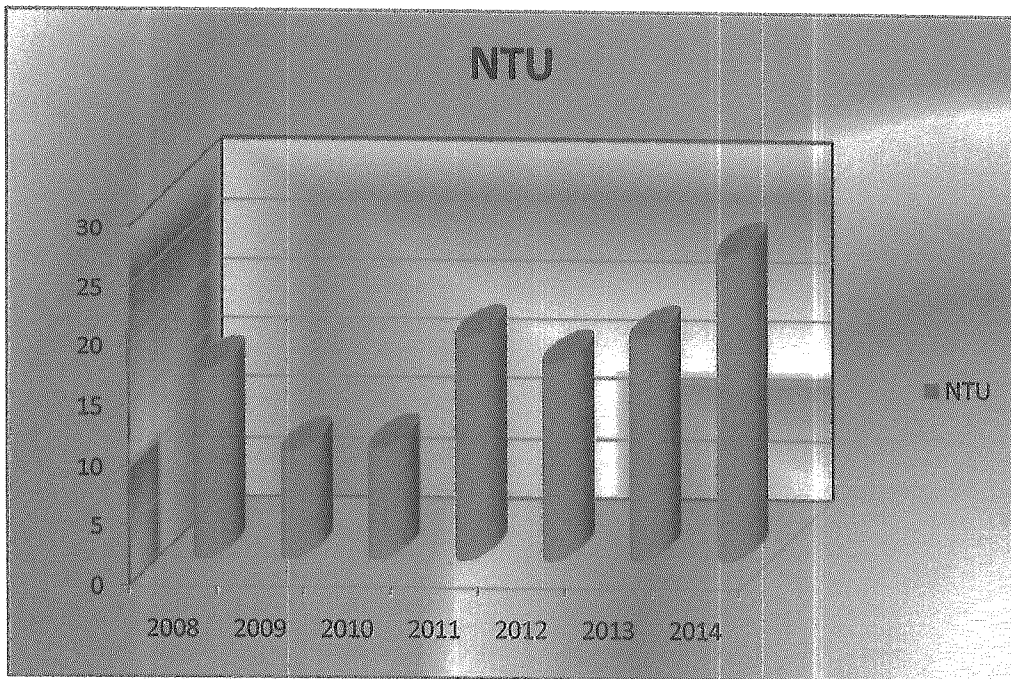
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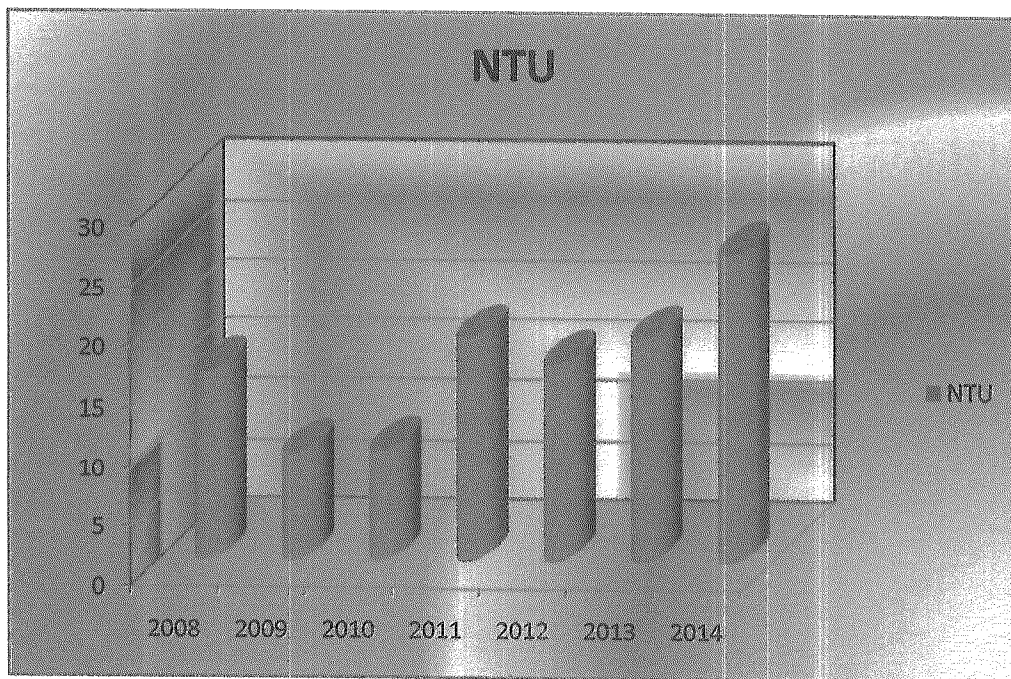
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**RAW**      This is water drawn directly from the river before treatment is received



THE COUNCIL OF THE CITY OF BINGHAMTON  
STATE OF NEW YORK

Date: October 22, 2014

Sponsored by Council Members: Motsavage, Berg, Mihalko, Rennia, Papastrat, Matzo

Introduced by Committee: Public Works/Parks and Recreation

**RESOLUTION**

*entitled*

A RESOLUTION AUTHORIZING THE MAYOR  
TO ENTER INTO SUPPLEMENTAL  
AGREEMENT NO. 2 WITH CLARK  
PATTERSON LEE FOR ADDITIONAL DESIGN  
SERVICES FOR THE SUSQUEHANNA NORTH  
BANK TRAIL DEVELOPMENT PROJECT (PIN  
9009.22)

WHEREAS, on November 17, 2008 the Council of the City of Binghamton adopted Permanent Resolution 08-110, entitled "A Resolution Authorizing the Mayor to Enter into a Professional Services Agreement with Clark Patterson Lee for Design Phase of Susquehanna River Northern Bank Trail Development (PIN 9009.22)"; and

WHEREAS, on May 4, 2011 the Council of the City of Binghamton adopted Permanent Resolution 11-39, entitled "A Resolution Authorizing the City to Enter into Supplemental Agreement No. 1 with Clark Patterson Lee on the Susquehanna North Bank Trail Development Project, PIN 9009.22"; and

WHEREAS, the Commissioner of Public Works has recommended entering into Supplemental Agreement No. 2 with Clark Patterson Lee for additional design services and construction inspection on the Susquehanna North Bank Trail Development Project in an amount not to exceed \$139,000; and

WHEREAS, this project is 77% reimbursable with Federal Funds; and

WHEREAS, funding for additional design services and construction inspection on the Susquehanna North Bank Trail Development Project is available from budget line H5410.525053.92206 (Waterfront).

NOW, THEREFORE, the Council of the City of Binghamton, duly convened in regular session, does hereby:

RESOLVE, that the Mayor, or his designee, is hereby authorized to enter into Supplemental Agreement No. 2, approved as to form and content by the Office of Corporation, with Clark Patterson Lee for additional design services and construction inspection on the Susquehanna North Bank Trail Development Project (PIN 9009.22); and be it further

THE COUNCIL OF THE CITY OF BINGHAMTON  
STATE OF NEW YORK

Date: October 22, 2014

RESOLVED that funding for additional design services and construction inspection on the Susquehanna North Bank Trail Development Project (PIN 9009.22) is available from budget line H5410.525053.92206 (Waterfront).

I HEREBY CERTIFY that the above described funds are unencumbered and available.

  
\_\_\_\_\_  
Chuck Shager, Comptroller



# Legislative Branch

RL Number:

19-157

Date Submitted:

10/24/14

City Clerk, City Hall, Binghamton, NY 13901 607-772-7005

## REQUEST FOR LEGISLATION

Requests for Legislation (RLs) may be submitted to the City Clerk's Office for consideration at City Council Work Sessions. RLs generated from within City Hall departments must be submitted to the Mayor, Comptroller and Corporation Counsel for review before submission. RLs generated by citizens may be submitted directly to the City Clerk's Office.

### Applicant Information

Request submitted by: Gary R. Holmes & Michael Dervay

Title/Department: Commissioner/Public Works

Contact Information: grholmes@cityofbinghamton.com

### RL Information

Proposed Title: Substitute Approved Lease Equipment Purchase

An Ordinance Amending the 2013 Capital Lease Budget ---

Suggested Content: In the adopted 2013 capital lease budget City Council approved the purchase of a Transfer Trailer & 5-Ton Dump Truck. The Department of Public Works wishes to substitute a John

Deere 624 Front End Loader at a cost of \$166,667.45 for the previously approved items.

The budget line for funding is the 2013 Capital Lease Money from US Bank Corp.

### Additional Information

Does this RL concern grant funding? Yes ☐ No ☐

If 'Yes', is the required RL Grant Worksheet attached? Yes ☐ No ☐

Is additional information related to the RL attached? Yes ☐ No ☐

Is RL related to previously adopted legislation? Yes ☐ No ☐

If 'Yes', please provide Permanent Ordinance/Resolution/Local Law number(s): \_\_\_\_\_

OFFICE USE ONLY	
Mayor:	
Comptroller:	
Corporation Counsel:	
Finance <input checked="" type="checkbox"/>	Planning <input type="checkbox"/> MPA <input type="checkbox"/> PW/Parks <input type="checkbox"/> Employees <input type="checkbox"/> Rules/Special Studies <input type="checkbox"/>





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**Quote Summary****Prepared For:**

City Of Binghamton Purchasing Purchasing  
38 Hawley St  
Binghamton, NY 13901

**Prepared By:**

Scott Wiedemann  
Five Star Equipment, Inc.  
1653 Ny Rt. 11  
Kirkwood, NY 13795  
Phone: 607-775-2006  
Mobile: 607-343-7221  
wiedemannscott@fse-i.com

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**Quote Id:** 9607721**Created On:** 30 April 2014**Last Modified On:** 04 September 2014**Expiration Date:** 30 May 2014

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**Equipment Summary**

JOHN DEERE 624K LOADER

**Selling Price**

\$ 166,667.45 X

**Qty**

1 =

**Extended**

\$ 166,667.45

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**Equipment Total****\$ 166,667.45**

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**Quote Summary**

Equipment Total

\$ 166,667.45

SubTotal

\$ 166,667.45

Total

\$ 166,667.45

Down Payment

(0.00)

Rental Applied

(0.00)

**Balance Due****\$ 166,667.45**

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**Salesperson : X** \_\_\_\_\_**Accepted By : X** \_\_\_\_\_

# Selling Equipment



Quote Id: 9607721

Customer: CITY OF BINGHAMTON PURCHASING PURCHASING

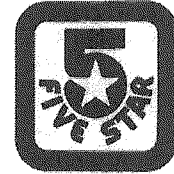
## JOHN DEERE 624K LOADER

Hours:

Stock Number:

Code	Description	Qty
7650T	624K LOADER	1
Standard Options - Per Unit		
0810	624K Standard Gathering Group	1
0924	John Deere PowerTech PVS 6.8L meets EPA FT4 and EU Stage IV Emissions (186 Net Peak hp)	1
1010	624K Loader	1
1110	4-Speed Transmission	1
1215	130 amp Alternator	1
1330	Engine Muffler with Chrome Exhaust Stack	1
1410	Air Intake system without Precleaner Engine	1
1510	Standard Fan Drive	1
1610	Standard Fuel Filter & Water Separator	1
1700	JDLINK Ultimate Cellular for the Americas, excluding Costa Rica	1
1910	Greased Steering Cylinder Joints	1
2010	Z-BAR with Standard Greased Pin Joints	1
2120	Steering Wheel Only	1
2230	Premium Heated, Leather/Fabric, High- Wide Back with Head Rest Extension, Air Suspension Seat with Conventional Left Arm Rest	1
2432	3 Function -- Joystick with FNR and 3rd Function Auxiliary Control Lever	1
2510	Ride Control	1
2605	English Labels and Decals	1
2708	24 Volt to 12 Volt - 8 Amp Converter	1
2850	Embedded Payload Scale (EPS)	1
3046	Front Hydraulically Locking Differential and Rear Conventional Differential Axles	1
3120	Manual Axle Differential Lock	1
4412	Bridgestone VUT	1
5550	Full Front and Rear Fenders For Muddy Applications	1

# Selling Equipment



Quote Id: 9607721

Customer: CITY OF BINGHAMTON PURCHASING PURCHASING

5610	Left Side Steps	1
7110	Halogen Work and Drive Lights	1
8210	Cast Hitch	1
8320	Heated Outside Mirrors	1
8422	ROPS Quiet Cab with Air Conditioning	1
8450	Cab with Air A/C Charge	1
8560	Z-BAR Hydraulic Attachment Coupler	1
8850	3.5 Cu. Yd. (2.7 Cu. M.) GP Coupler	1
	Bucket with Bolt-on Cutting Edge	
9015	Engine Block Heater	1
9043	Environmental Drains and Sampling	1
	Ports	
9105	AM/FM/WB Radio	1
9125	Single Beacon Bracket	1
9140	5.0 lbs. multi purpose (ABC) Dry	1
	Chemical Fire Extinguisher	
9420	Transmission Side Frame Guards	1
9430	Bottom Guards	1
9520	License Plate Bracket and Light	1
<b>Other Charges</b>		
	Freight	1
	Setup	1



# Legislative Branch

RL Number:

19-158

Date Submitted:

10/29/14

City Clerk, City Hall, Binghamton, NY 13901 607-772-7005

## REQUEST FOR LEGISLATION

*Requests for Legislation (RLs) may be submitted to the City Clerk's Office for consideration at City Council Work Sessions. RLs generated from within City Hall departments must be submitted to the Mayor, Comptroller and Corporation Counsel for review before submission. RLs generated by citizens may be submitted directly to the City Clerk's Office.*

### Applicant Information

Request submitted by: William Barber

Title/Department: Director Parks & Recreation

Contact Information: 772-7017

### RL Information

Proposed Title: Ely Park Golf course operation agreement re-negotiation

A Resolution Authorizing the Mayor to Enter into an Amended Existing Operating Agreement with

Suggested Content: Re-negotiate a five year operating agreement extension with Ely Park, LLC

to operate and manage the Ely Park Golf course for the City of Binghamton.

City Park LLC

### Additional Information

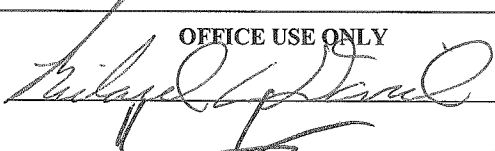


Does this RL concern grant funding? Yes ☐ No ☒

If 'Yes', is the required RL Grant Worksheet attached? Yes ☐ No ☐

Is additional information related to the RL attached? Yes ☐ No ☒

Is RL related to previously adopted legislation? Yes ☒ No ☐

If 'Yes', please provide Permanent Ordinance/Resolution/Local Law number(s): R11-31

OFFICE USE ONLY					
Mayor:					
Comptroller:					
Corporation Counsel:					
Finance <input checked="" type="checkbox"/>	Planning <input type="checkbox"/>	MPA <input type="checkbox"/>	PW/Parks <input type="checkbox"/>	Employees <input type="checkbox"/>	Rules/Special Studies <input type="checkbox"/>



# Legislative Branch

RL Number:

14-159

Date Submitted:

10/31/14

City Clerk, City Hall, Binghamton, NY 13901 607-772-7005

## REQUEST FOR LEGISLATION

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### Applicant Information

Request submitted by: Gary R. Holmes, P.E.

Title/Department: Acting City Engineer, Engineering Dept.

Contact Information: grholmes@cityofbinghamton.com

### RL Information

Proposed Title: Intermunicipal Agreement to Form the Broome-Tioga Stormwater Coalition  
for Federal Phase II MS4 Stormwater Regulation Implementation in Broome and Tioga Counties

Suggested Content: The City of Binghamton joining the Intermunicipal Agreement to Form the  
Broome-Tioga Stormwater Coalition for Phase II MS4 Stormwater Regulations Implementation in  
Broome and Tioga Counties. The annual fee is \$1,000.00. Funding available in budget line  
A1440.54410 (Professional Services)

### Additional Information

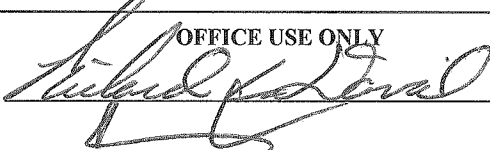


Does this RL concern grant funding? Yes ☐ No ☐

If 'Yes', is the required RL Grant Worksheet attached? Yes ☐ No ☐

Is additional information related to the RL attached? Yes ☒ No ☐

Is RL related to previously adopted legislation? Yes ☐ No ☐

If 'Yes', please provide Permanent Ordinance/Resolution/Local Law number(s): \_\_\_\_\_

OFFICE USE ONLY	
Mayor:	
Comptroller:	
Corporation Counsel:	
Finance <input type="checkbox"/>	Planning <input type="checkbox"/> MPA <input type="checkbox"/> PW/Parks <input checked="" type="checkbox"/> Employees <input type="checkbox"/> Rules/Special Studies <input type="checkbox"/>

**INTERMUNICIPAL AGREEMENT  
TO FORM THE BROOME-TIOGA STORMWATER COALITION FOR  
FEDERAL PHASE II MS4 STORMWATER REGULATION IMPLEMENTATION  
IN BROOME AND TIOGA COUNTIES**

March 2014

An INTERMUNICIPAL AGREEMENT among municipal corporations of the County of Broome, Edwin L. Crawford Building, 44 Hawley St, PO Box 1766 and the County of Tioga, 56 Main Street, Owego NY 13827, hereinafter referred to as "Counties" and the City of Binghamton, 38 Hawley Street, Binghamton NY 13901, hereinafter referred to as "City" and the Town of Binghamton, 279 Park Avenue, Binghamton NY 13903, the Town of Chenango, Chenango Town Hall, 1137 Front Street, Binghamton NY 13905, the Town of Conklin, PO Box 182, 1271 Conklin Rd, Conklin NY 13748, the Town of Dickinson, 531 Old Front Street, Binghamton NY 13905, the Town of Fenton, 44 Park Street, Port Crane NY 13833, the Town of Kirkwood, 70 Crescent Drive, Kirkwood NY 13795, the Town of Owego, 2354 State Route 434, Apalachin, NY 13732, the Town of Union, 3111 E Main Street, Endwell NY 13760, the Town of Vestal, 605 Vestal Parkway W, Vestal NY 13850, hereinafter referred to as "Towns", and the Village of Endicott, 1009 E Main Street, Endicott NY 13760, the Village of Johnson City, 243 Main Street, Johnson City NY 13790, and the Village of Port Dickinson, 786 Chenango Street, Binghamton NY 13901, hereinafter referred to as "Villages".

WHEREAS, Broome County and Tioga County are responsible for coordination of water quality management activities in their Counties through the Broome and Tioga County Water Quality Coordinating Committees and;

WHEREAS, the Phase II federal stormwater regulations require that small municipal separate storm sewer systems must be authorized in accordance with the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems; and;

WHEREAS, the Phase II federal stormwater regulations require that regulated small municipal separate storm sewer system operators must prepare and implement a stormwater management program that includes six minimum control measures; and;

WHEREAS, the municipalities recognize that, because watersheds and separate storm sewer systems cross municipal boundaries and because there are opportunities to save time, money, and energy by working collaboratively, the municipalities should work together to identify and analyze options for meeting the requirements of the Phase II Federal stormwater regulations; and;

WHEREAS, the Counties, Towns, Villages and City have an interest in protecting water quality and have been participating in or following the work of the Broome-Tioga Stormwater Coalition and;

WHEREAS, the Towns and Villages and City and the Counties of Broome and Tioga recognize the benefits of cooperating to achieve improved water quality and flood control, and;

WHEREAS, a Broome-Tioga Stormwater Coalition started has been holding meetings since January of 2003 to identify and analyze options for pooling resources to meet the requirements of the Phase II Federal Stormwater Regulations, and;

WHEREAS, the Broome-Tioga Stormwater Coalition provides participating MS4 communities with access to public education programming, public participation events, training opportunities, collaborative annual reporting, and other services, and;

NOW, THEREFORE, in consideration of the mutual covenants and agreements hereinafter set forth, the parties hereto mutually agree as follows:

1. To continue participation as formal members of the Broome-Tioga Stormwater Coalition.



2. To contribute an annual fee of \$1000.00 toward the implementation of Broome-Tioga Stormwater Coalition projects and programming to be submitted by March 10<sup>th</sup> of each year, the beginning of the MS4 annual reporting period, to be submitted to Southern Tier East Regional Planning Development Board per their role in BTSC administration.
3. To authorize the work of the Broome-Tioga Stormwater Coalition whose purpose it is to cooperatively implement the MS4 Stormwater Management Plans required by the DEC's Phase II Stormwater regulations and thereby oversee the utilization and expenditure of funds received on behalf of the Coalition for said purpose.
4. Each municipal corporation will designate an official representative to serve on the Broome-Tioga Stormwater Coalition. The designee shall be responsible to attend and participate in meetings of the Coalition and to transmit stormwater policy issue questions to their municipal corporation. The designee shall also be responsible to obtain opinions on stormwater policy issues from the municipal corporation and to share such opinions with the Stormwater Coalition membership. Each municipal corporation may also designate additional representatives to participate in the work of the Stormwater Coalition in cooperation and coordination with the official representative.
5. This Agreement may be modified or amended only in writing duly executed by all parties, which shall be attached to and become a part of this Agreement.
6. Each municipal corporation shall, to the extent of its general commercial liability insurance, indemnify and hold harmless the other municipal corporations, its officers, agents and assigns for all liability arising as a result of its own acts and omissions regarding the activities under this Agreement. It is understood and agreed that no municipal corporation shall indemnify any or all of the other municipal corporations for liability arising as a result of the acts or omissions of another municipal corporation who is a party to this Agreement.
7. The Agreement shall be governed by and construed in accordance with the laws of New York State without regard or reference to its conflict of laws and principles.
8. This agreement shall become effective upon the municipal corporation's execution of the Agreement. In the event that not all of the municipal corporations identified in the initial paragraph of this Agreement execute the Agreement, the municipal corporations executing the Agreement agree that it shall be binding as to them.
9. Any municipal corporation may withdraw from this Agreement upon sixty (60) days written notice to the other municipal corporations who are parties to the Agreement. The withdrawal of one or more municipal corporation shall not result in the termination of this Agreement and its provisions shall continue to be applicable to the municipal corporations remaining parties to the Agreement.
10. This Agreement may be terminated upon the written consent of a majority of the municipal corporations who are parties to this Agreement at the time of the proposed termination.

IN WITNESS WHEREOF the signatories of this agreement hereby authorize this Memorandum of Understanding:

Debra A. Preston, Broome County Executive \_\_\_\_\_ Date \_\_\_\_\_

Martha C. Sauerbrey, Tioga County Legislature Chair \_\_\_\_\_ Date \_\_\_\_\_

Richard C. David, City of Binghamton Mayor \_\_\_\_\_ Date \_\_\_\_\_

Timothy P. Whitesell, Town of Binghamton Supervisor \_\_\_\_\_ Date \_\_\_\_\_

Hal Snopek, Town of Chenango Supervisor \_\_\_\_\_ Date \_\_\_\_\_

James E. Finch, Town of Conklin Supervisor \_\_\_\_\_ Date \_\_\_\_\_

Michael Marinaccio, Town of Dickinson Supervisor \_\_\_\_\_ Date \_\_\_\_\_

David C. Hamlin, Town of Fenton Supervisor \_\_\_\_\_ Date \_\_\_\_\_

Gordon E. Kniffen, Town of Kirkwood Supervisor \_\_\_\_\_ Date \_\_\_\_\_

Donald Castellucci, Jr., Town of Owego Supervisor \_\_\_\_\_ Date \_\_\_\_\_

Rose A. Sotak, Town of Union Supervisor \_\_\_\_\_ Date \_\_\_\_\_

W. John Schaffer, Town of Vestal Supervisor \_\_\_\_\_ Date \_\_\_\_\_

John Bertoni, Mayor of Village of Endicott \_\_\_\_\_ Date \_\_\_\_\_

Gregory W. Deemie, Mayor of Village of Johnson City \_\_\_\_\_ Date \_\_\_\_\_

Kevin M Burke, Mayor Village of Port Dickinson \_\_\_\_\_ Date \_\_\_\_\_



# Legislative Branch

RL Number:

14-160

Date Submitted:

11/3/14

City Clerk, City Hall, Binghamton, NY 13901 607-772-7005

## REQUEST FOR LEGISLATION

*Requests for Legislation (RLs) may be submitted to the City Clerk's Office for consideration at City Council Work Sessions. RLs generated from within City Hall departments must be submitted to the Mayor, Comptroller and Corporation Counsel for review before submission. RLs generated by citizens may be submitted directly to the City Clerk's Office.*

### Applicant Information

Request submitted by: Gary R. Holmes, P.E.

Title/Department: Engineering - Acting City Engineer

Contact Information: grholmes@cityofbinghamton.com

### RL Information

Proposed Title: Supplemental No. 1 with Clark Patterson Lee on the Front St Gateway Project,  
PIN 9753.16 for Additional Preliminary Design and Survey/Cultural Resources

Suggested Content: To enter into Supplemental No. 1 with Clark Patterson Lee on the Front St.  
Gateway Project, PIN 9753.16 for additional preliminary design and survey/cultural resources. This  
Supplemental No. 1 is adding an additional \$146,000.00 to the original agreement with Clark Patterson  
Lee. Funding available in budget line H5112.525016.40914 - FRONT ST. GATEWAY

### Additional Information

Does this RL concern grant funding? Yes ☐ No ☒

If 'Yes', is the required RL Grant Worksheet attached? Yes ☐ No ☒

Is additional information related to the RL attached? Yes ☒ No ☐

Is RL related to previously adopted legislation? Yes ☒ No ☐

If 'Yes', please provide Permanent Ordinance/Resolution/Local Law number(s): R09-049

OFFICE USE ONLY	
Mayor:	<u>[Signature]</u>
Comptroller:	<u>[Signature]</u>
Corporation Counsel:	<u>[Signature]</u>
Finance <input type="checkbox"/>	Planning <input type="checkbox"/>
MPA <input type="checkbox"/>	PW/Parks <input checked="" type="checkbox"/>
Employees <input type="checkbox"/>	Rules/Special Studies <input type="checkbox"/>

## Section 1 - General

### 1.01 Project Description and Location

This project is known as: **Front Street Gateway Project**

**PIN: 9753.16**

Work Description:

This scope of work was prepared to describe the supplemental tasks associated with the project and is meant to work in conjunction with the original scope.

Additional Tasks include:

- ROW mapping
- ROW appraisal and acquisition services
- Geotechnical investigations
- Phase 1A Investigations (including final design tasks such as preparing a construction monitoring plan and specification)
- Geomorphological Investigations related to SHPO requests.
- Supplemental Survey and Mapping
- Hazardous Waste Contaminated Soil Investigations
- Storm and Sanitary Sewer design tasks (as a locally funded share)

Project Limits:

The original project limits that are studied in the design report are along Front Street from the intersection with Main Street (south side) to intersection of Prospect Street (north side).

Design Approval (and subsequently Final Design) will be limited to the portion of Front Street from the Intersection of Winding Way to Prospect Street.

Municipality: **City of Binghamton**

County: **Broome**

All work performed by the **Consultant** at the **Consultant's** initiative will be within the project limits specified above.

### 1.02 Contract Administrator

The Municipality's Contract Administrator for this project is Gary Holmes, PE, Public Works Commissioner, who can be reached at **607.772.7021**.

All correspondence to the **Municipality** should be addressed to:

**Mr. Gary Holmes, PE  
Public Works Commissioner  
City Hall  
38 Hawley Street  
Binghamton, New York 13901**

The Contract Administrator should receive copies of all project correspondence directed other than to the **Municipality**.

### **1.03 Project Classification**

This project is assumed to be a Class II action under USDOT Regulations, 23 CFR 771.

Classification under the New York State Environmental Quality Review Act (SEQRA) Part 617, Title 6 of the Official Compilation of Codes, Rules, and Regulations of New York State (6 NYCRR Part 617) is assumed to be a Type II.

### **1.04 Categorization of Work**

Project work is generally divided into the following sections:

Section 1	General
Section 2	Data Collection & Analysis
Section 3	Preliminary Design
Section 4	Environmental
Section 5	Right-of-Way
Section 6	Detailed Design
Section 7	Advertising, Bid Opening and Award
Section 8	Construction Support
Section 10	Estimating & Technical Assumptions

When specifically authorized in writing to begin work the **Consultant** will render all services and furnish all materials and equipment necessary to provide the **Municipality** with reports, plans, estimates, & other data specifically described in Sections 1, 2, 3, 4, 5, 6, 7, 8, & 10.

### **1.05 Project Familiarization**

This task was performed under the original scope of work.

## 1.06 Meetings

The **Consultant** will prepare for and attend all meetings as directed by the **Municipality's** Contract Administrator. Meetings may be held to:

- Present, discuss, and receive direction on the progress and scheduling of work in this agreement.
- Present, discuss, and receive direction on project specifics.
- Discuss and resolve comments resulting from review of project documents, advisory agency review, and coordination with other agencies.
- Preview visual aids for public meetings.
- Manage subconsultants and/or subcontractors.

The **Consultant** will be responsible for the preparation of all meeting minutes; the minutes will be submitted to meeting attendees within one (1) week of the meeting date.

## 1.07 Program and Planning

This task will continue to be performed as necessary under the original scope of work.

## 1.08 Cost and Progress Reporting

For the duration of this agreement, the **Consultant** will prepare and submit to the **Municipality** on a monthly basis a Cost Control Report, and a Progress Report in a format approved by the **Municipality**. The beginning and ending dates defining the reporting period will correspond to the beginning and ending dates for billing periods, so that this reporting process can also serve to explain billing charges. (In cases where all work under this contract is officially suspended by the **Municipality**, this task will not be performed during the suspension period.)

## 1.09 Policy and Procedures

The design of this project will be progressed in accordance with the current NYSDOT Procedures for Locally Administered Federal Aid Projects and appropriate sections of the Federal Aid Policy Guide (FAPG).

### A. Compliance with documents

All work must conform to current versions of the following documents including, all Engineering Instructions (EI's) and all Engineering Bulletins (EB's), as applicable. Where necessary, the **Consultant** will obtain either the full document or guidance extracted from it.

- A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials (AASHTO)



- Highway Capacity Manual, Special Report 209, Trans. Research Board
- NYS Eminent Domain Procedure Law
- ADA Accessibility Guidelines for Buildings and Facilities
- AASHTO Model Drainage Manual & NYSDOT Model Drainage Manual
- AASHTO Guide for the Development of Bicycle Facilities
- NYSDOT Scoping Procedure Manual, Appendix D (Design Traffic Forecast Policy)
- NYSDOT Highway Design Manual, Chapter 2 (Design Criteria)
- NYSDOT Highway Design Manual, Chapter 7 (Resurfacing, Restoration and Rehabilitation (3R))
- USDOT (FHWA) Manual of Uniform Traffic Control Devices with the NYSDOT supplemental.
- NYSDOT Environmental Procedures Manual
- NYSDOT Guide to Planning, Design and Operation of Pedestrian Facilities
- NYSDOT Policy And Standards For Entrances To State Highways

#### B. Compliance with Environmental Laws, Regulations and Permits

All work must comply with the requirements of all applicable state and federal environmental laws, regulations and policy. Applicable laws, regulations and policies are specified in Appendix A of the NYSDOT Design Procedure Manual.

### 1.10 Specifications

The project will be designed and constructed in accordance with the current edition of the NYSDOT Standard Specifications for Construction and Materials, including all applicable revisions.

### 1.11 Subconsultants

#### A. The **Consultant** will be responsible for:

- Coordinating and scheduling work, including work to be performed by subconsultants.
- Technical compatibility of a subconsultant's work with the prime consultant's and other subconsultants' work.

#### B. Proposed subconsultants;

1. Ravi Engineering & Land Surveying-Survey and Mapping, Right of Way Mapping and Environmental Services
2. RK Hite- Right of Way acquisition services

### 3. Morton Archeological Services

#### 1.12 Subcontractors

A. For subcontracts to this consultant contract equaling or under \$20,000 (\$10,000 for printing contracts):

1. The **Consultant** will prepare a contract document describing the work, schedule, and method of payment in sufficient detail for obtaining reliable quotations (non-binding estimates) for the work. The **Consultant** will provide the work description and will submit it to the **Municipality** for review. The **Consultant** will modify the work description as necessary before including it in the contract document.

2. The **Consultant** will solicit quotations from a sufficient number of prospective qualified subcontractors (typically three) to ensure that the work will be performed in the most economical manner. The **Consultant** will maintain and keep for review records of the quote solicitation process to document competition for the service. Upon receipt of the quotations, the **Consultant** will submit them to the **Municipality** along with a recommended choice. The **Municipality** will either concur or choose one of the other candidate subcontractors and advise the **Consultant** to proceed.

3. Upon receipt of written authorization from the **Municipality** to proceed, the **Consultant** will execute the contract with the subcontractor and oversee the subcontractor's operations/services to the extent of assuring that the work is performed as described in the contract and that the work performed conforms to applicable requirements.

B. Proposed subcontractors

1. SJB Services: Soil boring and Asphalt Coring subcontractor

## **Section 2 - Data Collection & Analysis**

### **2.01 Design Survey**

- A. Ground Survey - As described in the original scope of work.
- B. Supplemental Survey - The **Consultant** will provide supplemental survey between North Street and Gerard Street.
- C. Standards - As described in the original scope of work.

### **2.02 Design Mapping**

The **Consultant** will provide the following supplemental design mapping:

1"=20ft scale mapping with 1ft contour intervals. (English Units)

### **2.03 Determination of Existing Conditions**

This task was performed under the original scope of work.

### **2.04 Accident Data and Analysis**

This task was performed under the original scope of work.

### **2.05 Traffic Counts**

This task was performed under the original scope of work.

### **2.06 Capacity Analysis**

This task was performed under the original scope of work.

### **2.07 Future Plans for Roadway and Coordination with Other Projects**

This task was performed under the original scope of work.

### **2.08 Soil Investigations**

The **Consultant** will determine additional boring locations, diameters, and sampling intervals; designate soil boring numbers; take additional the soil borings related to the Phase 1A investigations and per the requests of SHPO to satisfy the Cultural Resources requirements of the project. The **Consultant** will also document the resulting subsurface information; and plot the approximate boring locations.

### **2.09 Hydraulic Analysis**

Not in contract

## **Section 3 - Preliminary Design**

### **3.01 Design Criteria**

As described in the original scope of work.

### **3.02 Development of Alternatives**

#### **3.021 Selection of Design Alternative(s)**

This task was performed under the original scope of work.

#### **3.022 Detailed Evaluations of Alternative(s)**

This task was performed under the original scope of work.

### **3.03 Cost Estimates**

This task was performed under the original scope of work.

### **3.04 Preparation of Draft Design Approval Document**

This task was performed under the original scope of work.

### **3.05 Advisory Agency Review**

This task was performed under the original scope of work.

### **3.06 Public Information Meeting(s) and/or Public Hearing(s)**

This task was performed under the original scope of work.

### **3.07 Preparation of Final Design Approval Document**

This task was performed under the original scope of work.

## **Section 4 - Environmental**

### **4.01 NEPA Classification**

This task was performed under the original scope of work.

### **4.02 SEQRA Classification**

This task was performed under the original scope of work.

### **4.03 Screenings and Preliminary Investigations**

This task was performed under the original scope of work.

### **4.04 Detailed Studies and Analyses**

A detailed hazardous waste study will be performed during as part of the Final Design to determine the limits of potential contaminated soils with the ROW. The appropriate specifications, work items and quantities for the testing, storage, and disposal of any encountered contaminated waste will be included in the final contract documents.

### **4.05 Permits and Approvals**

As described in the original scope of work.

## **Section 5 - Right-of-Way**

### **5.01 Abstract Request Map and Title Search**

The **Consultant** will complete title searches (abstracts of title) for properties to be acquired by the **Municipality**. The information will be presented in tabular format and an ARM will not be required.

### **5.02 Right-of-Way Survey**

The **Consultant** will perform survey needed to accurately determine existing right-of-way limits and establish side property lines.

### **5.03 Right-of-Way Mapping**

The **Consultant** will meet with the **Municipality** to discuss the types of right-of-way acquisitions required and the limits of acquisition lines.

The **Consultant** will prepare acquisition maps in accordance with the format provided by the **Municipality**.

All right-of-way mapping will show English dimensions.

### **5.04 Right-of-Way Plan**

The **Consultant** will prepare the right-of-way plans in conformance with the "Locally Administered Federal Aid Procedures Manual".

### **5.05 Right-of-Way Cost Estimates**

The **Consultant** will prepare cost estimates for the right-of-way to be acquired on all alternatives being considered and will provide preliminary take line mapping, as necessary.

### **5.06 Public Hearings/Meetings**

Not in contract

### **5.07 Property Appraisals**

The **Consultant** will prepare property appraisals, including estimating the damages caused by the acquisition(s). The **Consultant** will prepare estimates for the rental of occupied property(ies).

### **5.08 Appraisal Review**

The **Consultant** will review appraisals prior to offers being made to the property owners.

### **5.09 Negotiations and Acquisition of Property**



The **Consultant** will negotiate with property owners for the acquisition of their property, including completion of all documents required to obtain the property.

**5.10 Relocation Assistance**

Not in contract

**5.11 Property Management**

Not in contract

## **Section 6 - Detailed Design**

### **6.01 Pre-Advanced Detail Plans**

As described in the original scope of work.

The **Consultant** will also design portions the Storm and Sanitary sewers along Front Street:

- a) Sanitary Sewer Design will be limited to the following portions of Front Street:
  - 1) Replace the existing 10" sewer between Prospect Street and the manhole south of #329 Front St with 12" PVC.
  - 2) Replace the existing 18" sewer between Gaines St and North McDonald Ave with 18"PVC.
- b) Storm Sewer Design will be limited to the following portion of Front Street:
  - 1) Replace the existing sewer between Franklin Ave and McDonald Avenue.
  - 2) The new Storm Sewer will tie into the recently designed and installed pump station located at McDonald Ave.

### **6.011 Public Information Meeting**

As described in the original scope of work.

### **6.02 Advance Detail Plans (ADP)**

As described in the original scope of work.

### **6.03 Contract Documents – Plans, Specifications and Estimate (PS&E)**

As described in the original scope of work.

### **6.04 Cost Estimate**

As described in the original scope of work.

### **6.05 Utilities**

As described in the original scope of work.

### **6.08 Information Transmittal**

As described in the original scope of work.

## **Section 7 - Advertisement, Bid Opening and Award**

### **7.01 Advertisement**

As described in the original scope of work.

### **7.02 Bid Opening (Letting)**

As described in the original scope of work.

### **7.03 Award**

As described in the original scope of work.

## **Section 8 - Construction Support**

### **8.01 Construction Support**

As described in the original scope of work.

## **Section 10 - Estimating & Technical Assumptions**

### **10.01 Estimating Assumptions**

The following assumptions have been made for estimating purposes:

#### **Section 1**

As described in the original scope of work.

#### **Section 2**

As described in the original scope of work.

#### **Section 3**

As described in the original scope of work.

#### **Section 4**

As described in the original scope of work.

#### **Section 5**

Assume 9 parcels of property for ROW survey.

An ARM will not be required. Assume 9 ROW acquisitions will be required. Additional research and a refinement of the road boundary and property sideline placements will be conducted once impacted/affected properties are identified. Acquisition maps of the portions of property to be acquired will be provided for 9 temporary easements.

Assume 9 property appraisals and subsequent appraisal reviews and property acquisitions will be provided.

#### **Section 6**

As described in the original scope of work.

#### **Section 7**

As described in the original scope of work.

## **Section 8**

As described in the original scope of work.

## **10.02 Technical Assumptions**

### **Section 2**

As described in the original scope of work.

### **Section 4**

As described in the original scope of work.

### **Section 5**

As described in the original scope of work.

### **Section 6**

As described in the original scope of work.

The new storm system will be sized using Rational Method.

Approximately 3 houses along Front Street have their roof leaders tied into the existing sanitary system. The remaining houses have roof leaders that discharge in the ground surface. No roof leaders will be transferred from the sanitary system to the new storm system.

One additional plan/profile sheet is assumed to be necessary along McDonald Ave. City of Binghamton will provide additional pump station record plans and/or base mapping along McDonald Ave to depict connections from Front Street to the City's new pump station for the Trout Brook sanitary crossing.

No additional survey and mapping will be required for the sewer designs.

The proposed sanitary main will be replaced along the same alignment and grade as the existing sewer.

All existing sewer laterals will be replaced within the highway boundary.

No additional easements will be required to perform storm or sanitary sewer work.

No special specifications will be prepared for the sewer design work.

Sanitary sewer construction will be bid as part of the base bid not as an Add-Alternate.



The **Consultant** will create a separate sewer share in the cost estimate for this work.

No flow demand computations will be prepared to further size the proposed sanitary sewer.

No additional meetings are assumed. Sewer improvements will be discussed and reviewed as part of the normal project review process already contained in the project scope.

Because the sewer pipe is being replaced in kind, no additional DEC Permits will be required.

The required bypass pumping system (during construction) will be designed by the contractor based on flow data provided by the City of Binghamton.

Exhibit C  
Summary

Clark Patterson Lee  
Front Street Gateway Project - Supplemental #1  
City of Binghamton  
PIN: 9753.16  
Supplemental Design Services  
10/6/2014

Item IA, Direct Technical Salaries (estimated) subject to audit		\$ 4,857.00
Item IB, Direct Technical Salaries Premium Portion of overtime subject to audit (estimate)		0
Item II, Direct Non-Salary Cost (estimated) subject to audit		\$ -
Item II Direct Non-Salary Cost (estimated) subject to audit (Sub-Contractor Cost)	SJB Services	\$ 3,100.00
	Morton Archaeological Research Services	\$ 7,520.00
	Property Appraisal/Acquisition	\$ 17,000.00
	John Stiteler - Geomorphological Investigations	\$ 4,164.00
Item III, Overhead (estimated) subject to audit	Overhead rate is 122%	\$ 5,925.54
Item IV Fixed Fee (Negotiated)	Fixed Fee is 13% (ITEM IA+ITEM II+ITEM III)	\$ 1,402.00
Item II Direct Non-Salary Cost (estimated) subject to audit (Sub-Consultant Cost)	Ravi Engineering & L.S. - Phase 1A Investigation	\$ 12,700.00
	Ravi Engineering & L.S. - Additional Survey and Mapping	\$ 8,286.00
	Ravi Engineering & L.S. - ROW Mapping	\$ 4,787.00
	Ravi Engineering & L.S. - HWCS Detailed Investigations	\$ 43,991.00
Clark Patterson Lee - Storm and Sanitary Sewers Design (see separate labor/fee sheet:		\$ 31,500.00
Total Estimated Cost		\$ 145,232.54
contingency		\$ 767.46
SUPPLEMENTAL AMOUNT	Say	\$ 146,000.00
		=====